

Scenic Resource Protection Guide for the Hudson River Valley



Cornell University
College of Architecture,
Art, and Planning

This project was funded in part by the New York State Environmental Protection Fund through the Hudson River Estuary Program of the New York State Department of Environmental Conservation.

About the Hudson River Estuary Program

The Hudson River Estuary Program uses the science of ecology to help people enjoy, protect, and revitalize the Hudson River estuary. Created in 1987 through the Hudson River Estuary Management Act (ECL 11-0306), the program focuses on the tidal Hudson and its adjacent watershed from the dam at Troy to the Verrazano Narrows in New York City.

The core mission of the Estuary Program is built around six key benefits:

- Clean Water
- Resilient Communities
- Vital Estuary Ecosystem
- Estuary Fish, Wildlife, & Habitats
- Scenic River Landscape
- Education, River Access, Recreation, & Inspiration.

The Estuary Program works in close collaboration with many partners – from nonprofit organizations to businesses, local governments to state and federal agencies, interested residents, and many others. For more information, visit www.dec.ny.gov.

About Cornell University's Department of City & Regional Planning

The Department of City & Regional Planning at Cornell University is the home of leading programs in urban and regional planning, historic preservation planning, and regional development. Its faculty, students, and alumni work to transform planning and the lives of the world's citizens by bridging social and economic concerns, physical design and sustainability, utilizing a diverse tool kit of methods and ways of critical thinking. For more information, visit <https://aap.cornell.edu/academics/crp/about>

For additional copies, contact:

New York State Department of Environmental Conservation Hudson River Estuary Program
21 South Putt Corners Road New Paltz, NY 12561-1696
hrep@dec.ny.gov



Recommended Citation:

Frantz, George. 2021. Scenic Resource Protection Guide for the Hudson River Valley.
Department of City & Regional Planning, Cornell University, and New York State Department of Environmental Conservation, Hudson River Estuary Program. Ithaca, N.Y.

Cover photography by George Frantz. Unless noted all photos elsewhere in document are by George Frantz.

Acknowledgements

There are too many people to acknowledge their contributions individually, but this guidebook would not have been possible without the support of numerous local elected officials in the region, and the many, many appointed lay volunteers of local planning boards, environmental boards, conservation advisory councils, land trusts, and just simply concerned and committed local citizens, who gave their time and energy to assisting the student teams to test their scenic resource inventory methodologies in their communities.

We also wish to acknowledge the assistance of the staffs of the local county planning agencies – Dutchess County Department of Planning and Development, Greene County Department of Economic Development, Tourism and Planning, Orange County Department of Planning, and Ulster County Planning Department who graciously provided both critical GIS mapping data, and technical support to the student teams.

This project was funded in part by a grant from the New York State Environmental Protection Fund through the Hudson River Estuary Program of the New York State Department of Environmental Conservation.





Table of Contents

Executive Summary	1
Introduction	4
Purpose of This Document	4
Scenic Resources and Why They Are Important	6
Two Centuries of Open Space Protection in the Hudson River Valley	8
Elements of Landscape and Scenery	10
Classifying the Landscape	10
Desirable Landscapes	15
Undesirable Landscapes	19
Existing Protected Lands	20
Identifying Scenic Resources in the Community	23
The Art of Seeing	23
Public Input	24
Mapping Scenic Resources	25
Prioritizing for Protection	27
<i>Case Study: Creating a Scenic Resources Map for the Town of Putnam Valley</i>	28
The Tools for Protection	31
Conservation Easements	31
Land Ownership	32
Land Use Planning	33
Regulatory Approaches – Zoning	34
<i>Case Study: Town of Cornwall Overlay Districts</i>	36
Regulatory Approaches – Cluster Subdivision	39
Regulatory Approaches – Site Plan Review	41
Vegetation Management	41
Mitigating Visual Impact	43
Conclusion	46
Appendix 1. List of Resources for Local Governments	47



Scenic Resource Protection Guide for the Hudson River Valley

Executive Summary

Introduction

The local governments and citizens of the Hudson River Valley are critical players in the protection of the unique ecological resources and landscapes that have contributed to its growth and economic prosperity. This landscape provides an unparalleled setting within which to live and work, but it is also a driving force behind a growing tourism sector. It is critical to a rebounding agricultural sector and evolving regional food system. Protecting this unique landscape, both along the river, and in the hinterlands, has been a multi-generational effort dating back over a century.

This scenic resource protection guide has been developed to assist local governments, and residents as they continue to work together to identify, plan, and protect the important scenic resources within their community. It is another tool that local governments, and citizen groups, can utilize to achieve their collective goals of revitalizing the Hudson River waterfront and restoring public access to the river, while also promoting the restoration and protection of the river for future generations.

But what is a scenic resource? In the Hudson River Valley, scenic resources can be found and experienced everywhere: they are locations or features in the local landscape that are viewed, visited, and enjoyed for their aesthetic quality. Often they are visible through the living room window, or from the porch or deck, or the car windows. For the purpose of this guide, however, the definition of a scenic resource is slightly narrower: a scenic resource is an area, feature, or site

that is recognized, visited, and enjoyed by the *general public* for their inherent visual qualities.

This guide focuses on identifying and protecting those scenic resources that are visible from the public domain: our roads and highways, parks and other public areas. It should be noted that many scenic resources are privately owned properties and not accessible to the public. Nor need they be to still contribute greatly to the visual quality of the Hudson River Valley.

A scenic resource can also be a critical ecological resource, such as a stream or wetland, old growth forest, or important wildlife habitat. Scenic resources are often major contributors to the region's economy, in the form of agricultural fields, orchards and vineyards, or in the form of tourist destinations such as the multiple state and regional parks, and numerous historic landmarks and communities.

Continuing a Tradition

There is a long history of open space protection initiatives in the Hudson River valley dating to the first half of the 1800s. The Conservation Movement in the USA in the late 1800s brought together government and business leaders, and local communities, to advocate for the protection of America's and New York's natural beauty. Many were inspired by the Hudson River School artists and authors such as John Burroughs working from his Riverby home and his nearby Slabside retreat in Esopus. From the beginning, open space protection in the Hudson River

Valley has been marked by citizen action and partnerships between individuals, citizen groups, non-profit organizations, and local, state and federal governments.

Non-governmental organizations (NGOs), both regional and national, have played a critical role in open space and scenic resource protection in the region. Over the past half-century, they have raised millions of dollars and protected tens of thousands of acres through acquisition and conservation easement programs, often acting where government is not able to. Today some 27 local and regional land trusts involved in open space protection in the Hudson River Valley typify the passion and commitment to protecting open space and scenic resources in the valley.

Through action by the State, local government, and private organizations and individuals, some 580,000 acres of publicly or privately protected lands in the region are now protected.

Inventorying Scenic Resources

Although the primary objective of a scenic resource inventory is the protection of these valued community resources, the process of identifying and assessing scenic resources presents an opportunity for residents to stop and in a conscious manner view scenic resources that are often passed unnoticed on the way to and from other places. The act of documenting scenic resources is also an act of discovery of and recording of the community's landscape, followed by an enhanced awareness and appreciation by residents of their community. Inventories of scenic views can be very useful in both documenting, and raising awareness of scenic resources.

Key elements in the inventory and analysis of scenic resources include:

- The landscape character, or the objects or features within a landscape that give it a unique identity, and sense of place;
- The scenic attractiveness, or how the features of a landscape such as topographic features, water features, vegetation and cultural/human features, relate in terms of their line, form, color, texture, and visual composition – aesthetic qualities;
- The integrity, or degree of intactness and wholeness of a landscape, and the lack of disruptive or incompatible visual elements within the landscape;
- The relative value placed on a viewshed by the community and visual prominence of features within the viewshed, based on distance from an observer.

Scenic resources are a reflection of community values, so the participation of residents from throughout the community is a critical component of any endeavor to identify and prioritize the protection of community scenic resources. Community consensus on what constitutes a scenic resource, what the significant scenic resources in the community are, and what level of priority should be given to each resource, can ensure the successful implementation of a scenic resource protection program. A robust program of public participation should occur at multiple points in the process, from defining what constitutes a significant scenic resource, to developing a methodology for scoring and prioritizing which lands should be protected first, to deciding which protection tool is most appropriate for protecting individual scenic resources. Public participation in identifying and mapping scenic resources in the community can also build a strong constituency for implementation of the protection plan.

This guide assumes that the primary tool for protecting scenic resources in communities will be conservation easements that maintain the land in private ownership, with land owners still maintaining control of access to their lands under the easement. Some parcels containing one or more scenic resources, however, may be considered important enough to be acquired by government, as public open space.

It is important where land is considered for acquisition that, as part of the scenic resource inventory, decisions be made regarding what types of activities or uses of the land would be appropriate. With foresight, scenic resource protection can enhance public access to open space and accommodate a variety of compatible recreation activities as well.

Other Protection Tools

There are a number of tools other than easement or land acquisition that are available for communities to implement their scenery conservation goals and objectives. Most important are comprehensive plans and zoning regulations. The comprehensive plan provides a vision for the future, and can include natural resource inventories, agriculture and farmland protection plans, park and recreation plans, transportation plans, open space indexes, and scenic resource inventories.

Local governments are also empowered to adopt regulatory tools such as subdivision regulations, site plan review, design guidelines or standards, and zoning overlay districts. Subdivision regulations combined with sensitive zoning can be very effective tools, from encouraging compact New Urbanist

development in built up areas to using Conservation Subdivision in rural areas.

Vegetation management is the practice of planting and controlling vegetation growth as a means of framing landscape views. There are many scenic views throughout the region, along public roads as well as from parks and other locations, however failure to maintain views from public highways and public lands can result in the loss of scenic views.

The impact on scenic resources from incompatible development is a continuous challenge, but mitigation measures can be utilized to reduce identified visual impacts of development on scenic or aesthetic resources. In some cases, simple mitigating measures can be utilized to eliminate or substantially reduce visual impacts of developments.

Conclusion

This guide builds on many previous open space protection initiatives and guides in the Hudson River Valley. While its focus is on identifying and protecting scenic resources in the region, it is designed to be consulted and utilized in concert with other information available to communities in the valley, such as comprehensive plans, open space plans, natural resource inventories and other sources of information and guidance. It is also a guide that is focused on providing lay citizens and local government officials tools that they can utilize to protect key scenic resources within their community.



Introduction

Purpose of This Document

Local governments are critical players in protecting the unique ecological resources and landscapes that have contributed to their growth and economic prosperity, while providing residents with an unparalleled setting within which to live and work. The long tradition of home rule in New York gives local government both substantial powers to regulate growth and development within their boundaries, but also substantial responsibilities. Increased regulatory responsibilities, coupled with increased expectations for public services by residents consistently challenge the capacities of local governments.

One of the challenges is the protection of the unique landscape in the Hudson River Valley, both along the river, and in the hinterlands. This landscape not only enhances the quality of life for residents, but is also a driving force behind a growing tourism sector and critical to a rebounding agricultural sector. This is also a landscape that can be viewed from several perspectives, typically from a vantage point within the immediate surrounding landscape, but also from the Hudson River itself, the opposite shoreline or a distant Catskill peak. This requires an additional level of sensitivity as scenic resources in the region are often shared across municipal boundaries, and decisions affecting a scenic resource in one jurisdiction can have implications well beyond its boundaries.

This scenic resource protection guide has been developed to assist local governments, and residents as they work together to identify, plan, and protect the important scenic resources within their community. It is another tool that local government can utilize to achieve their goals of revitalizing the Hudson River waterfront and restoring public access to the river,

while also promoting the restoration and protection of the river for future generations.

In recent decades, the Hudson Valley riverfront has experienced a new era of revitalization after emerging from a history of industry and commerce into a post-industrial age. As pressure for development increases within the Hudson River Valley, the need for safeguard measures to protect important lands, including scenic resources, along the river shoreline has increased in tandem. Fortunately, we are in a new era of widespread concern for the scenic, ecological, and agricultural resources that are present in the Hudson River Valley.

Local governments can take their first steps in the conservation of important lands by integrating the concepts of open space and scenic resource protection into their comprehensive plans. Through comprehensive planning, local governments can identify areas of their community that should remain undeveloped, but may be made available for public use such as a park or preserve or enjoyed as a scenic asset. A strong comprehensive plan that supports land use measures for protecting open space and scenic resources is essential for sustaining the region's economy, since agricultural tourism and real estate development are two important regional economic engines that depend on the unique scenic characteristics of the Hudson River Valley.

Investing in the protection of all community scenic resources may be a strong desire amongst residents and their local government officials. The fiscal constraints faced by government at all levels, however, places protection of each and every desirable scenic resource beyond the ability of most communities. These constraints are manifested not only in terms of

direct monetary costs of protecting all scenic resources, but also in the potential impacts on the local property tax base, particularly if lands are taken off the tax rolls. Moreover, scenic resource protection must be part of an overall municipal planning effort, one which acknowledges other pressing issues such as ensuring adequate land for decent, affordable housing for community members. Protecting scenic resource is best accomplished by accommodating housing and other community needs by channeling development toward more appropriate areas of the community, not by reducing development or giving lesser priority to local community needs.

Additional considerations in developing programs to protect scenic resources are the historic uses of the lands in the Hudson River Valley. The region is one of working landscapes – agricultural and forest resource uses that may not always be “scenic,” but working landscapes are nonetheless integral elements contributing to the overall scenic character of the community. Preservation of scenic resources must also recognize longstanding and informal uses of the land by members of the community, such as local walking routes, hunting, swimming, fishing and other recreational activities. Being informal, many of these activities are not protected from changes in land

ownership, or, changes in landowner priorities and desires.

In response this guide provides tools for prioritizing the protection of scenic resources in a rational manner, and to assist in determining an appropriate approach to protecting individual scenic resources (Figure 1). It is designed to guide communities in deciding where their efforts should be directed first. Achieving the goals of protecting key scenic resources, revitalizing the Hudson River waterfront and restoring public access through the creation of parks, needs to be a collaborative, multi-party effort. Local governments can partner with land trusts, agencies and organizations to develop and implement open space and scenic resource protection programs.

This document can serve as a resource for public officials, citizens, and citizen groups in planning for open space and scenic resource protection in their communities. The principles reflect and support a regional vision that includes open spaces for working farms, water and wildlife habitat, and recreation. We hope all communities can find common ground in the goals and principles in this document. By working together toward this common vision, Hudson River Valley communities can preserve their world-class scenery as a vital resource for residents and visitors.



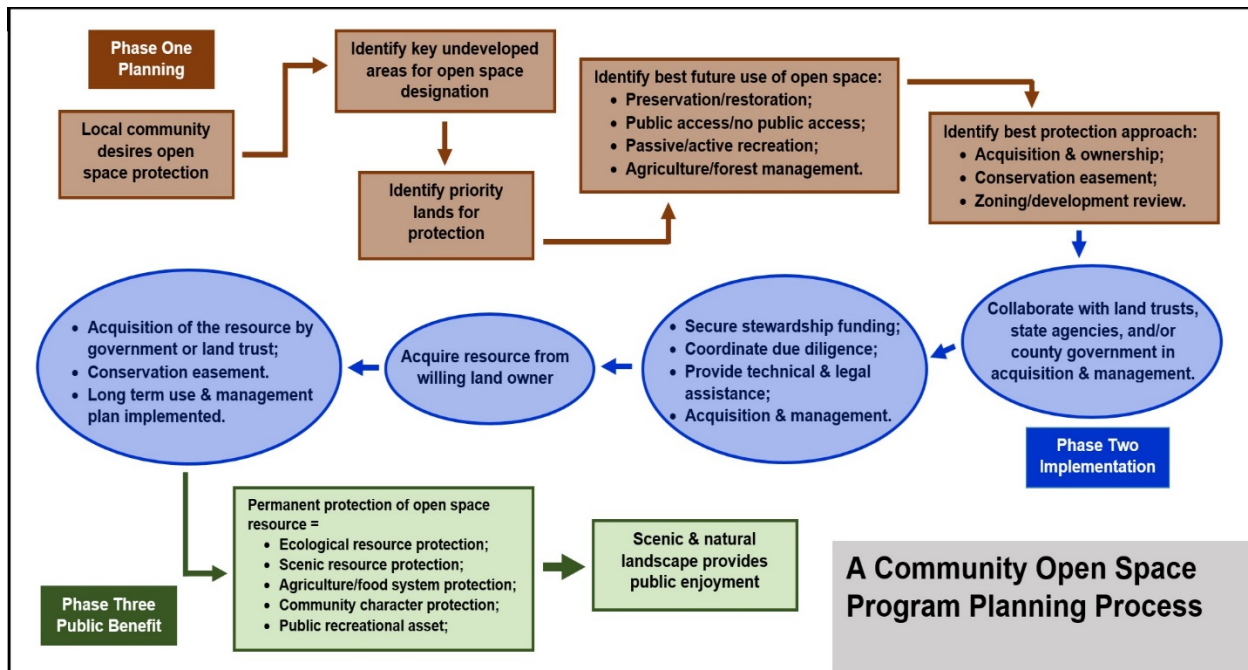


Figure 1. The Open Space Planning Process.

Scenic Resources and Why They Are Important

“Scenic attractiveness measures the scenic importance of a landscape based on human perceptions of the intrinsic beauty of landform, water characteristics, vegetation pattern, and cultural land use...”

(U.S. Forest Service, Landscape Aesthetics: Handbook for Scenery Management)

The valley of the Hudson River was formed over several hundred million years by the tremendous forces of tectonic plates colliding and pushing up mountain ranges, a continent tearing apart and periods of erosion and sedimentation. Finally, over the past 100,000 years or so, the Ice Age continental glaciers advanced through the valley, carving mountains and gouging out valleys, laying down thick deposits of glacial till and re-creating the river as a fjord.

The Hudson River was deep enough for sea-going ships, and its tributaries tumbled over numerous waterfalls next to which European arrivals established water-powered and later steam- and electric-powered industrial cities and transportation hubs. Places like

Newburgh became important shipbuilding centers and Hudson River shorelines north of Kingston were dotted with ice harvesting operations. Many communities also had brickyards due to their rich sands and clays. In 1809, four out of five cotton mills in New York were located along the Hudson River and by 1831 the region possessed five of six largest woolen mills in the state.

The Hudson River Valley continues to be a key transportation corridor, with millions of tons of freight and tens of thousands of passenger passing through on its railroads. The NYS Thruway, major highways such as US 6, US 9, US 9W and others, as well as the Taconic Parkway, carry tens of thousands through the

regional landscape each day. Since dredging in the Hudson River began in the early 1900s, barges and large ships now move tons of freight between Albany, New York City and beyond.

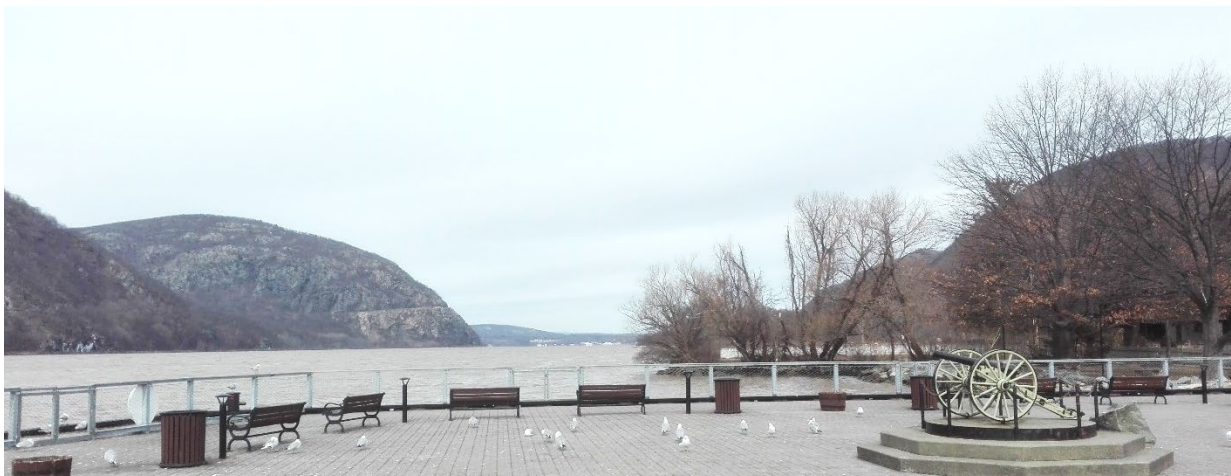
The scenic beauty of the Hudson River and its region has long inspired Americans. The Hudson River School of painting in the 19th century introduced its scenic beauty to the world. In recent decades, the Hudson River Valley has drawn a renewed interest from the eyes of developers after emerging out of a distinguished history of industry and commerce. As pressure for development increases within the Hudson River Valley, the need to protect important lands, including scenic resources, along the river shoreline has grown.

But what is a scenic resource? In the Hudson River Valley, they are everywhere of course: locations or features in the local landscape that are viewed, visited, and enjoyed for their aesthetic quality. Often they are visible right through the living room window, or the porch or deck, or the car windows. For the purpose of this guide, however, the definition of a scenic resource is slightly narrower: *a scenic resource is an area, feature, or site that is recognized, visited, and enjoyed*

by the general public for their inherent visual qualities.

The key difference is that the focus is on the enjoyment of the general public. Thus, this guide will focus on identifying and protecting scenic resources that are visible from the public domain: our roads and highways, parks and other public areas. But it should be noted that while a scenic resource may be publicly owned and accessible by the general public, many scenic resources are privately owned properties and not open to the public. They, however, can contribute greatly to the visual quality of a place, even without public access.

Scenic resources and their protection are critical to the region for their multiple benefits, aside from the enjoyment residents experience. A scenic resource can also be a critical ecological resource, such as a stream or wetland, old growth forest, or important wildlife habitat. A scenic resource can be a major contributor to the region's economic wealth, in the form of agricultural fields, orchards and vineyards, or in the form of tourist destinations such as the multiple state and regional parks, and numerous historic landmarks and communities.



Two Centuries of Open Space Protection in the Hudson River Valley

The Hudson River Valley has long been recognized as a scenic area of national renown. The first widely known recognition of American landscape beauty was expressed during the 19th century in the work of the Hudson River School of painters, which developed in the Hudson Valley before spreading to the rest of the nation. Internationally noted American painters such as Thomas Cole and Frederic Church, Hudson River School pioneers, both lived along the Hudson River and celebrated its scenic beauty and that of the Catskill Mountains in their art. Their paintings brought artists and tourists from around the USA and the world to see and enjoy the scenery of the Hudson River and its valley. The regional landscape has continued to inspire artists and today continues to be home to world famous artists and artist colonies.

There is a long history of open space protection initiatives in the Hudson River valley dating to the first half of the 1800s. One of the first conservation agreements in the USA was applied to lands along the Saw Kill at Montgomery Place, Red Hook in 1841. The agreement between Louise Davezac Livingston of Montgomery Place and Robert Donaldson, the owner of the Blithewood estate, prohibited construction of industries or exploit the water of the Saw Kill, to protect the natural beauty of the stream and surrounding landscape¹.

“And it is further agreed that covenants shall be inserted in the conveyance and all subsequent conveyances that the Saw Kill and the water power shall not at any time hereafter be used for milling or manufacturing purposes...”

Letter from Garret Van Keuren (lawyer) to Louise Davezac Livingston, February 5th, 1841,

With the rise of the Conservation Movement in the USA in the 1890s, inspired by writers such as John Burroughs writing from his Riverby home and his nearby Slabsides retreat in Esopus, government and business leaders, and local communities, began to advocate more for the protection of America’s and New York’s natural beauty.

From the beginning, open space protection in the region has been marked by citizen action and partnerships between individuals, citizen groups, non-profit organizations, and local, state and federal governments. Non-governmental organizations (NGOs), both regional and national, have played a critical role in open space and scenic resource protection. Over the past half-century, they have raised millions of dollars and protected tens of thousands of acres through acquisition and conservation easement programs, often acting where government is not able to.

Individuals and families in the region too have contributed to open space protection through donations of lands and money to open space protection.

Following exploitation of the nearby Catskill Mountains during the 19th century by the lumbering, leather tanning and other wood products industries, as well as stone quarrying, the Catskill Forest Preserve was created in 1885 by New York State. In 1895 the Catskill Forest preserve lands were protected under the New York State Constitution as “forever wild.” Today the forested slopes and crests of the Catskill Mountains continue to be one of the dominant

¹ Saw Kill Watershed Community. The History of the Saw Kill.

<https://sawkillwatershed.wordpress.com/about/historical-information/>

landscape elements in the region, contributing greatly to the scenic beauty of the region

To the south of the Catskills, the Hudson Highlands and Palisades rise in spectacular fashion out of the Hudson River. In the 1890s and early 20th century New York governor then president Theodore Roosevelt and businessmen such as George Perkins and John D. Rockefeller Jr. organized public and private initiatives to create the Palisades Interstate Park Commission. Today the system encompasses some 100,000 acres of public park and open space in the lower Hudson River valley. Today, the 25 New York state parks in the Hudson River Valley protect some of the most important and well-known scenic and environmentally sensitive resources in the region, including some 30 miles of Hudson River shoreline.

The Palisades Interstate Parkway and Taconic State Parkway, tie together a network of key scenic and ecological areas into a system of state and local parks.

Local citizen action to oppose a pump storage hydroelectric project at Storm King Mountain in the 1960s is considered a watershed moment in the modern environmental movement. The challenges to the Federal Power Commission's approval of the project by environmental groups and local governments, on grounds of its potential damage to the environment and scenic beauty of the region, resulted in a landmark federal Appeals Court decision in 1965 that local citizens and citizen groups had a "special interest in aesthetic, conservational, and recreational aspects" of Storm King Mountain and the Hudson River.

In the 1970s, the Greene County Nuclear Power Plant proposed by the Power Authority of the State of New York near Catskill in 1974 set a major precedent in environmental impact review by taking into

consideration the visual impacts of such a large scale project on the scenic character of a region. Ultimately the project was denied a Nuclear Regulatory Commission license, partly on grounds of its potential visual impact.

Scenic Hudson, founded in 1963, works to protect and restore the Hudson River and its majestic landscape as an irreplaceable national treasure and a vital resource for residents and visitors. One of the group's top priorities has been the Save the Land That Matters Most campaign to, which was launched in 2007. The objective of the campaign is to provide a lasting way of commemorating the Quadricentennial of Henry Hudson's voyage up the river through the permanent protection of critical open space and scenic resources. The campaign was a collaborative effort with fellow land trusts, governments, individuals, and business to protect 65,000 acres of significant scenic, ecological and agricultural lands throughout the Hudson River Valley.

Today there are some 27 local and regional land trusts involved in open space protection in the Hudson River Valley. These local land trusts range from small community focused groups protecting tracts that are significant within their community, to town- and county-level land trusts protecting thousands of acres. Together they illustrate the passion and commitment to protecting open space and scenic resources in the valley.

Some 400 years of European settlement has left its mark on the region in the form of historic sites and architecture. Congress recognized the historic significance of the Hudson River and its region by designating the Hudson River Valley National Heritage Area in 1996. Up and down the Hudson are also numerous structures that reflect the growth and

development of the region, from modest farmsteads to large manors, historic mills and factories or their vestiges, government buildings, schools, taverns and hotels. Many persons of significance in American history have passed through or lived in the region, and numerous important events in history have occurred in

the region. Communities have recognized their heritage through the listing of almost 650 sites on the State and National Registers of Historic Places, and through the creation of some 80 historic districts. There are 12 State Historic Sites, and 5 National Historic Sites in the region

Elements of Landscape and Scenery

Classifying the Landscape

The landscape of the Hudson River is varied in its natural features, geology, terrain, and use. There are a number of ways that the landscape can be classified so that local officials and residents can better understand their community and the character of its landscape. According to the US Forest Service, a landscape's character is the "combination of the scenic attributes that make each landscape identifiable or unique." It is what distinguishes one community from another, creating a "sense of place" for residents and visitors.

Taking a close look at the landscape is an opportunity to document and describe the scenic, natural, historic and cultural elements that are the character of the

community. It is an opportunity to uncover and document small, but significant, details of the landscape that are overlooked in the day-to-day life.

The Hudson Valley can be classified into two major scenery categories: *micro* and *macro* landscapes. Micro landscapes occur where the distance between observer and the feature(s) being viewed is restricted to a matter of yards from any given vantage point. From small waterfalls, to a historic structure or stonewall in the woods, these landscapes can be easily overlooked. Especially in an era when much planning analysis relies on GIS and remote sensing data displayed on a computer screen, much can be missed.





Example of a micro landscape, Foundry Brook Waterfall, West Point Foundry Preserve, Cold Spring. (Photo by Nate Nardi-Cyrus)



Example of a macro landscape, the view south past Pollepel Island through the gorge through the Hudson Highlands to beyond West Point. (Photo by Laura Heady)

At the other end of the spectrum from micro landscapes, macro landscapes are the sweeping panoramic views across a much larger area. They may be enjoyed from hilltops, roads and highways, the bridges across the Hudson River, or even from the river itself. The panoramic landscapes of the Hudson River region are one of the noteworthy features of the region, and have inspired residents, visitors, artists since the days of the Hudson River School of painters.

The Dutchess County Greenway Connections development guide is a useful case study in analyzing the landscape. It defines a healthy and attractive landscape as being a patchwork quilt, with fabrics sewn together, not as a puzzle that is fragmented and has gaps between the pieces. A healthy and attractive landscape is a network of spaces and object, not a grouping of disparate, disjunctive spaces and objects.

The County identifies five types of landscapes:

1. **Highlands:** Mountainous areas comprised of ridgelines and hillsides that due to topography, bedrock and soil conditions can provide large blocks of scenic woodland as well as critical plant and wildlife habitat;
2. **Lowlands:** Valley floor areas characterized by the presence of waterways, riparian corridors, wetlands and floodplain systems that can provide valuable ecological services such as plant and wildlife habitat, flood water storage, stormwater filtering and treatment for urban runoff pollutants, and recreational opportunities;
3. **Centers:** Traditional central places such as crossroads, hamlets, villages and cities, often characterized by significant buildings and landmarks such as churches, public buildings and monuments, a commercial core or vestiges of one, and denser residential areas;
4. **Countryside:** Rural areas outside of the centers and beyond the suburban fringe,

consisting of agricultural lands and woodlands and scattered, limited residential development;

5. **Suburbs:** Low density, spread out low-rise residential, highway oriented commercial, educational and industrial development usually on the periphery of historic centers but also spreading outward along major highways toward another center.

A key concept noted in the Dutchess County Greenway Connections guide is that the streets, rural roads and highways of Dutchess County are the primary means by which residents and visitors perceive and assess the character of a community. They need to be treated as not just transportation corridors, but also prominent open spaces and the perspective from which many scenic resources are observed and enjoyed.

The “Scenic Resources in the Shawangunk Mountains Region: A Guide for Planning Boards,” utilizes the concept of landscape patterns. It notes 11 patterns of landscapes in the Shawangunk Mountains Region, including Farmland, Forests, and Historic Village Residential. The Guide lists issues and opportunities associated with each landscape pattern, and protection measures for planning boards to consider.

In response to growing public use of national forests and concerns about the impacts of timber harvesting, roadway construction and other activities that may impact the visual character of the national forest landscape, the US Forest Service in the 1970s began to develop methodologies for evaluating scenic resources and evaluating potential visual impacts of agency actions. According to the US Forest Service, a landscape character assessment should include:

1. How the landscape has developed over time using: the history of the community, its environment and ecology, and its landscape;



View from Mill Road/CR 85 in Dutchess County

2. Descriptions of existing landscape attributes such as landforms, vegetative pattern, water features/resources, and cultural features (the human imprint on the landscape);
3. Documentation of landscape attributes that may affect the senses other than sight as persons experience the landscape;
4. Documentation of potential landscape character.

In addition, the Forest Service utilizes distance as a factor in assessing the landscape and visual impacts of changes within viewsheds. The landscape and objects within 300 feet of the observer is defined as “immediate foreground;” the landscape between 300

feet and ½ mile from the observer is defined as “foreground;” the landscape between ½ mile and 4 miles of the observer is defined as “middleground;” and the landscape beyond 4 miles is defined as “background” (Figure 2).

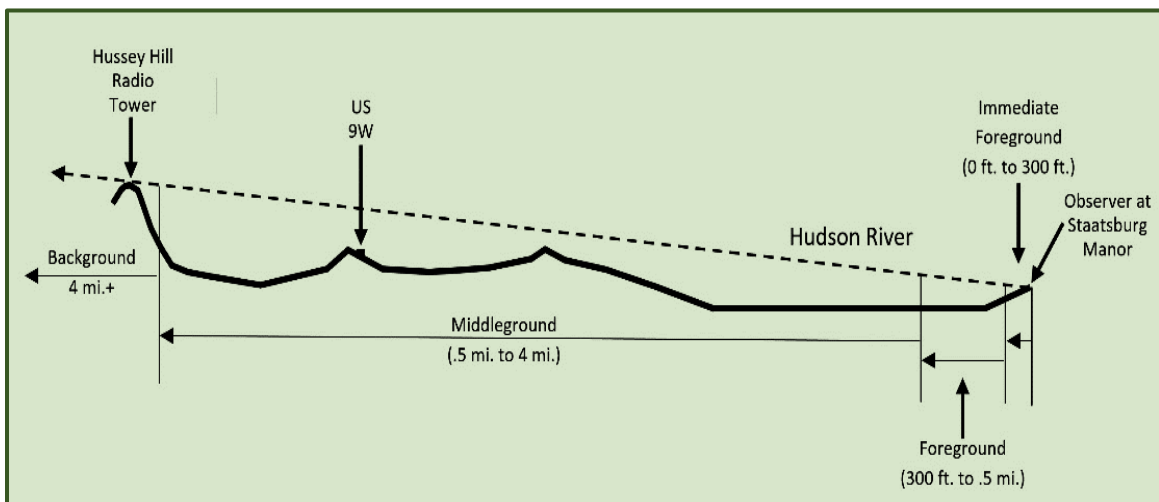


Figure 2. Adaptation of Forest Service distance zones to line of sight between Staatsburg Manor and radio transmission tower on Hussey Hill in the town of Esopus. The tower is just beyond the middleground zone, in the background zone, but the Hudson River and west shore are well within sensitive viewing distance of an observer at Staatsburg Manor.



An example of an immediate foreground and foreground landscape in the Town of Catskill. Individual plants in the meadow in the foreground and details of the barn exterior (400 feet away) can be distinguished, as can individual trees in the woodland at the top of the hill about 1,000 feet away.



View from lawn of Staatsburg Manor toward Hussey Hill on horizon. Distance to west shore of Hudson River is approximately .8 mile; to Esopus Meadows Lighthouse at right approximately .9 mile; to crest of hill at center of photo approximately 2.1 miles; to crest of Hussy Hill approximately 3.7 miles. Cell tower on horizon visible to right of center in the photo is approximately 4.0 miles away. (See Fig. 2)



Landscapes seen up close, such as immediate foreground landscapes, are more fine grained and detailed, and more visually sensitive to the observer. They also can be of a much smaller, more intimate scale.

As distance increases, individual features in the landscape become smaller, less detailed than closer to the observer. The middleground distances are considered to be more sensitive in terms of alterations to the landscape. At middleground distances the observer can often view a larger segment of the landscape and see features in better context with their surroundings than possible in foreground landscapes. Middleground landscapes also appear evenly textured, and so human activities that may dominate the form, line, or texture of the landscape can contrast strongly with the surrounding context and create discordance within a view.

Desirable Landscapes

In the Hudson River Valley, landscape attributes that may affect the senses other than sight include the sound of waterfalls, of birds, frogs and other life, or of ships on the river; the fragrance of vegetation, from native spring flowers to blossoming orchards; the taste

of local fruits and vegetables from a farmstand or eatery, or picked in the wilds; the feel of coarse rock on the feet or the fingers, or tall grasses walking through a meadow. These too should be noted.

Potential landscape character attributes include envisioned future growth and development patterns, as outlined in local planning documents and zoning regulations. As noted in the Dutchess County Greenway Connections guide roads and highways are also prominent open spaces and the perspective from which many scenic resources are observed and enjoyed. Not just existing character, but future character of the roadside, or viewsheds along the road, must be considered. Even natural vegetation growth must be considered. Abandoned agricultural lands in the region revert to meadow and forest in just a few decades. Vegetation management in strategic locations, including highway rights of way and public parks, is an important component in protecting and enhancing scenic resources in the region. (Figure 3)

The landscape is continually evolving, and managing that evolution can ensure the economic viability of its agricultural sector, preserve critical environmental areas; and preserve the scenic attributes that attract tourists from all over the world.



Figure 3. The North Meadow at Frederic Church's Olana estate is an example of a scenic viewshed that was lost to tree growth, and recently restored (Satellite imagery from 2001 on left and 2019 on right).

In the early 1990s, the New York Department of State developed the *Scenic Areas of Statewide Significance* (SASS) concept and applied it to lands along the Hudson River in Greene, Columbia, Dutchess, Ulster and Putnam counties. Six SASS were mapped along the Hudson River between the towns of Stony Point in Rockland County and Coeymans in Albany County. The objective of the program is to provide additional protection from federal or State actions which could adversely impact the scenic quality of the SASS, and to document the character and scenic quality of the landscape to provide guidance to regulatory agencies and the public. Detailed descriptions of each SASS identify landscape elements that should be protected, and actions that have potential to adversely impact the scenic quality of the SASS. (Figure 4)

Each SASS was further broken down into specific landscape subunits, each distinguished from adjoining areas by its character and composition. By scoring each of the landscape elements, public accessibility to

(visual as well as physical access), and public recognition of the subunit, the scenic quality of each subunit can be evaluated and rated against other subunits.

The project involved the development of the Scenic Evaluation Method. This was a participatory process involving the general public and government agencies in the development of the Method. Some 24 individual landscape elements were organized under the categories of Landscape Character, Cultural Character, Views, Landscape Composition, and Management Criteria. Each of the 24 individual elements were evaluated and rated on a scale of 1 to 3 as either "distinctive" (3 pts.), "noteworthy" (2 pts.), or "common" (1 pt.). The intent of the Scenic Evaluation Method is to provide an objective, numerical means for ranking and determining the landscape quality and significance of specific subareas along the river.

Scenic Areas of Statewide Significance		
SASS Unit	County	Description
Columbia-Greene North	Columbia, Greene, Albany, Rensselaer	The Hudson River and its shorelands on either side of the river, extending approximately 15 miles along the river about 15 miles on both sides. On the east shore it extends from the vicinity of Schodack Landing southward to just north of Hudson. On the west shore it extends from Coeymans hamlet south to the northern boundary of Athens village. The Area is ranges between 2 and 3 miles wide with its east and west boundaries generally follow the State coastal boundary with some variations.
Catskill-Olana	Columbia, Greene	The Hudson River and shorelands on either side of the river, extending approximately 5.5 miles along the river. On the west shore it extends from the north boundary of Catskill village southward to the north shore of Inbocht Bay and the intersection of Embought Road and US 9W. On the east shore it extends from Roeliff Jansen Kill and associated bluffs south of that stream northward to NYS Rte 23. It also incorporates Rogers Island and the river shore for a short distance north of the Rip Van Winkle Bridge. It is bounded on the east and west sides by Rte 9G and US 9W, and is roughly 3 miles wide.
Estates District	Columbia, Dutchess	The Hudson River and shorelands on the east side of the river, extending approximately 27 miles along the river. It extends southward from Cheviot Landing in the Town of Germantown to a point approximately 500 feet south of Maritje Kill in the Town of Hyde Park. The eastern boundary follows the eastern boundary follows Rte 9G, Hook Road, Old Post Road, and Rte 9 southward from Cheviot Landing to Hyde Park. The western boundary is the western shore of the Hudson River.
Ulster North	Ulster	The Hudson River and shorelands on the west side of the river, extending approximately 10 miles south from the northern boundary of Ulster County along the river to Ulster Landing Park in the Town of Ulster. The SASS ranges between 1.25 and 2.5 miles in width. The western boundary roughly follows US 9W and the CSX railroad through Saugerties village, then eastward on Spalding Lane, then south and southwesterly to a crossroads on Rte 32 in Glasco, then southward on Rte 32 to Ulster landing Road. The eastern boundary is the east shore of the Hudson River.
Esopus - Lloyd	Ulster	The Hudson River and shorelands on the west side of the river, extending approximately 17 miles south from Riverview Cemetery in Port Ewen hamlet, to Church Road in hamlet of Milton. South of Port Ewen the boundary runs along the crests of the ridges east of Mirror Lake and Esopus Lake and then back to US 9W near its intersection with River Road. It then follows US 9W south to the Esopus/Lloyd boundary where it turns east toward the river approximately 1,000 feet, then follows the crest of the shoreline bluffs south- and westward through Highland Village and Franny Reese St. Pk. to US 9W approximately 1.5 miles south of the Mid-Hudson bridge interchange. It then follows US 9W to the vicinity of the Lloyd/Milton boundary, then Milton Rd. to Church St. in Milton. The width of the SASS varies significantly from 0.75 to 2 miles. The eastern boundary of the SASS is the east shore of the Hudson River.
Hudson Highlands	Dutchess, Putnam, Orange, Rockland, Westchester	The Hudson River shorelands starting at the north end of Denning Point in Beacon and extending southward along both sides of the river some 20 miles to Lent's Cove in Buchanan village on the east shore and the northern edge of Tompkins Cove hamlet on the west shore. It ranges in width between 1 and 6 miles, generally encompassing the lands on both sides of the river to points beyond the crests of the mountains on both sides of the river. To the northeast it extends to the east end of Schofield Ridge above Beacon and Fishkill, while to the southwest it also encompasses Bear Mountain St. Pk. westward to the Palisades Interstate Parkway.

Figure 4. Scenic Areas of Statewide Significance

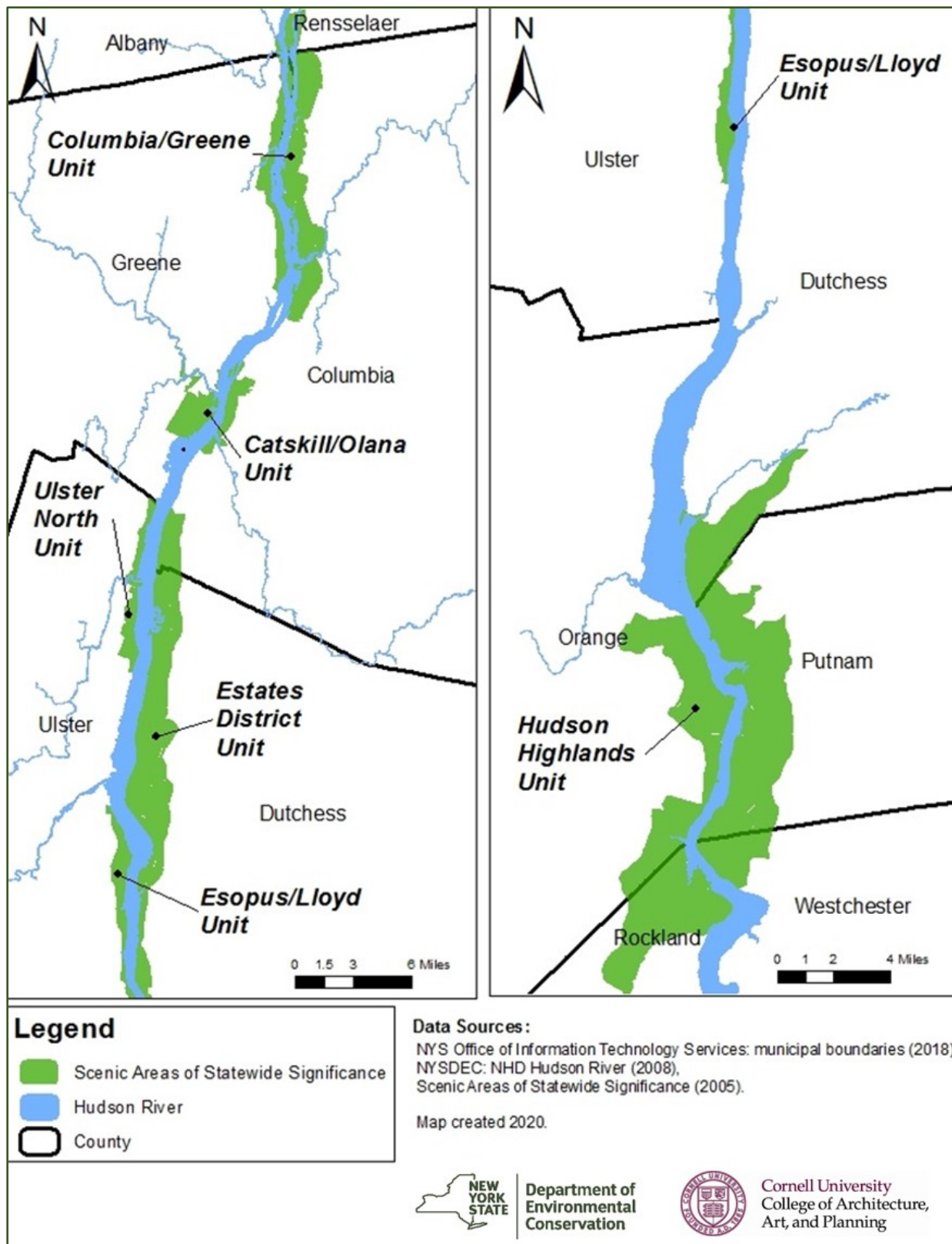


Figure 5. Hudson Valley Scenic Area of Statewide Significance.

Landscape character is a critical Scenic Evaluation Method parameter. The method uses three criteria in documenting and assessing landscapes: variety, unity, and contrast:

1. **Variety:** The mix of different landforms such as bluffs, mountains, hills, ravines; a mix of vegetation types such as dense hardwood forests, farm fields and orchards, hedgerows, wetland plant life, landscaped grounds of estates; a mix of water elements such as the Hudson River, tributaries with waterfalls and rapids, calm pools, lakes, ponds, wetlands, bogs. Also, the many homes, farmsteads, churches, mansions, monasteries, factories and other buildings that dot the landscape, and ephemeral elements, such as wildlife, ships, trains, and farm animals that pass across the field of vision.
2. **Unity:** The variety of components in the landscape must be unified, or compatible with the overall context within which they are situated. Discordant features, for instance a large metal industrial building or commercial development in the midst of farm fields in a predominantly rural landscape, or a large clearing of woodland for new homes along the river, detract from the aesthetic character and enjoyment of the landscape.
3. **Contrast:** Contrast in the landscape, without discordance, contributes to the overall character and aesthetic quality of the landscape. Examples of the types of contrast that contribute to landscape quality include the variations in color and texture of vegetation, in woodlands, meadowlands and agricultural fields; the sharp edges between old, historic hamlets and adjoining farm fields; the jagged rock islands within the broad river and green forest that descend to rivers edge; and the Catskills and Hudson Highlands rising from the valley floors.

To be considered desirable, landscapes should include the elements evaluated and characterized in the NY Scenic Evaluation Method. A desirable landscape should have significant cultural and aesthetic value, be accessible to the public, and be widely known to

people. The Scenic Areas of Statewide Significance that have been mapped along the Hudson River are a valuable resource for communities to utilize in their planning and growth management.

Undesirable Landscapes

Undesirable landscapes are those landscape elements that detract from the overall character of the larger landscape. Such discordant or incongruous landscape elements can include industrial and commercial land uses along the river and along regional roads and highways; instances of structural blight and abandoned buildings in communities, along roads and highways and along the river itself; as well as power lines, railroads, junkyards, quarries and billboards.

Policy 24 of the NYS Coastal Management Program defines impairment of landscapes along the river as:

1. The irreversible modification of geologic forms; the destruction or removal of vegetation; the modification, destruction, or removal of structures, whenever the geologic forms, vegetation or structures are significant to the scenic quality of an identified resource; and
2. The addition of structures which because of siting or scale will reduce identified views or which because of scale, form, or materials will diminish the scenic quality of an identified [scenic] resource.

Residential development is widespread and can cause significant and long-term visual impairment. The clearing of trees and other vegetation and subsequent construction of homes are the most obvious impacts, however, other concerns might arise from excess lighting, an increase in noise, and other changes to the character of the location. The practice of clearing away woodland in order to create wide swaths of lawn and panoramic views has resulted in a dramatic change in the character and the quality of the landscape along

the river, impacting views from across the river, as well as from on the river.

Early landscape designers such as Hudson Valley native Andrew Jackson Downing (1815-1852) emphasized an approach to landscape and residential design in which the home fits into the surrounding landscape and blends with its natural environment. In the late 1800s home builders and developers embraced the naturalistic landscapes of the English manor homes. Both Downing and his successors utilized trees and forests to create views and to frame particularly scenic viewsheds. In doing so they also reduced the visual impact of their new homes and lawns on the surrounding landscape.

Undesirable landscapes, however, are avoidable through thoughtful community planning and zoning and growth management practices, many of which are already in place in communities along the river. These include downtown and waterfront revitalization plans, up-to-date comprehensive plans, zoning regulations and development design guidelines that ensure the community evolves in a direction residents desire, and protect open space and scenic resources.

The Hudson River and its communities also have a long history of industry and commerce. These activities have left a rich heritage landscape that can be both discordant/undesirable, and desirable landscape elements (e.g. Walkway Over the Hudson). Many older industrial landscapes, downtowns and hamlets are now being preserved and rehabilitated for their economic development potential and continued contribution to the region's cultural landscape.

Existing Protected Lands

The Hudson River valley between New York City and Albany benefits from almost 150 years of open space and scenic resource protection efforts, both publicly and privately initiated. As a result, there are now some 580,000 acres of publicly or privately protected lands in the region. These lands provide a wide variety of ecological services and recreational opportunities, while protecting the landscape and heritage that the region is renowned for.

The forested slopes and peaks of the Catskill Mountains overlooking the Hudson River Valley are one of the preeminent scenic resources in New York State, inspiring artists such as Hudson River School of painters, including Thomas Cole and Frederic Church. The Catskills are visible from hundreds of viewpoints throughout the region and provide especially a spectacular backdrop for the mid-Hudson area. They are also a major economic asset, drawing tourists from all over the world. An estimated 60,000 or more acres of the Catskill Forest Preserve, along the eastern edge of the plateau, directly or indirectly contribute to the scenic character of the region, protection for critical ecological resources, and valued recreational opportunities. Outside the Catskill Preserve some 31 state parks and state historic sites are located in the region. Ranging in size from 47,180 acres in Harriman State Park, to the 91 acres of Stony Point State Historic Site, these parks offer residents a wide variety of outdoor recreation opportunities, from golf course greens, to swimming, fishing and boating, to primitive camping deep in the forests and mountains. Collectively OPRHP lands encompass approximately 164,150 acres in the region. (See Figure 6 below)

The approximately 217,500 acres of lands managed by the DEC are a major open space, recreational resource.

The State Forests, Wildlife Management Areas, Unique Areas, Multiple Use Areas, and the Catskill Forest Preserve lands protect critical open space and ecological resources while providing recreational opportunities.

The river itself has been a focus of protection, through DEC and OPRHP land acquisitions within the Coastal Management Area. These lands include wildlife habitat, recreational areas, scenic and other open space assets that are “along or in-sight of the Hudson River.”

Although the primary purpose of its land holdings are water supply protection, another nearly 47,700 acres of land within the region are owned by the New York City Department of Environmental Protection, as part of the New York City Watershed. These lands and reservoirs contribute to the scenic quality of the region, while providing limited outdoor recreational opportunities.

Land trusts have been leaders and key partners in protecting open space throughout the region. Altogether at least 25 land trusts now operate in all counties in the region. Combined, they are responsible for protecting approximately 125,000 acres of land, through conservation easements and ownership or management. Their legacy includes some 90 parks and preserves, and some 113,000 acres of agricultural

lands and other open space lands protected through conservation easements.

Local county and municipal governments are also actively engaged on open space protection, including just over 100 county-owned and managed parks in the region, providing around 25,000 acres of recreational and natural open spaces. Many local cities, towns and villages also own and manage parks within their jurisdictions.

Open space protection in the region has from the beginning been a partnership between State and local governments, and the region’s citizens and citizen groups. Over almost 150 years, individual citizens, and groups of citizens have acquired and donated thousands of acres of land worth millions of dollars to New York State, to local communities, and to local land trusts. The multiple local land trusts are one of the faces of citizen action to protect the region’s open space resources. Without the initiatives of citizens active individually and collectively, much the region’s state park system could not have been created. Without state funding support for open space protection and investment in new public parks, often leveraging the funding of local governments, land trusts and other citizens’ groups, the protection initiatives of the past several decades could not have been possible.

Protected Lands in the Hudson River Valley	
	Acreage
Department of Environmental Conservation	217,500
Office of Parks, Recreation and Historic Preservation (OPRHP)	164,150
Land Trusts	125,000
New York City Watershed Lands	47,700
Local & County Governments*	25,000
Total Acreage	579,350
* Estimated from Protected Areas Database & NYS Office of Real Property Service data.	

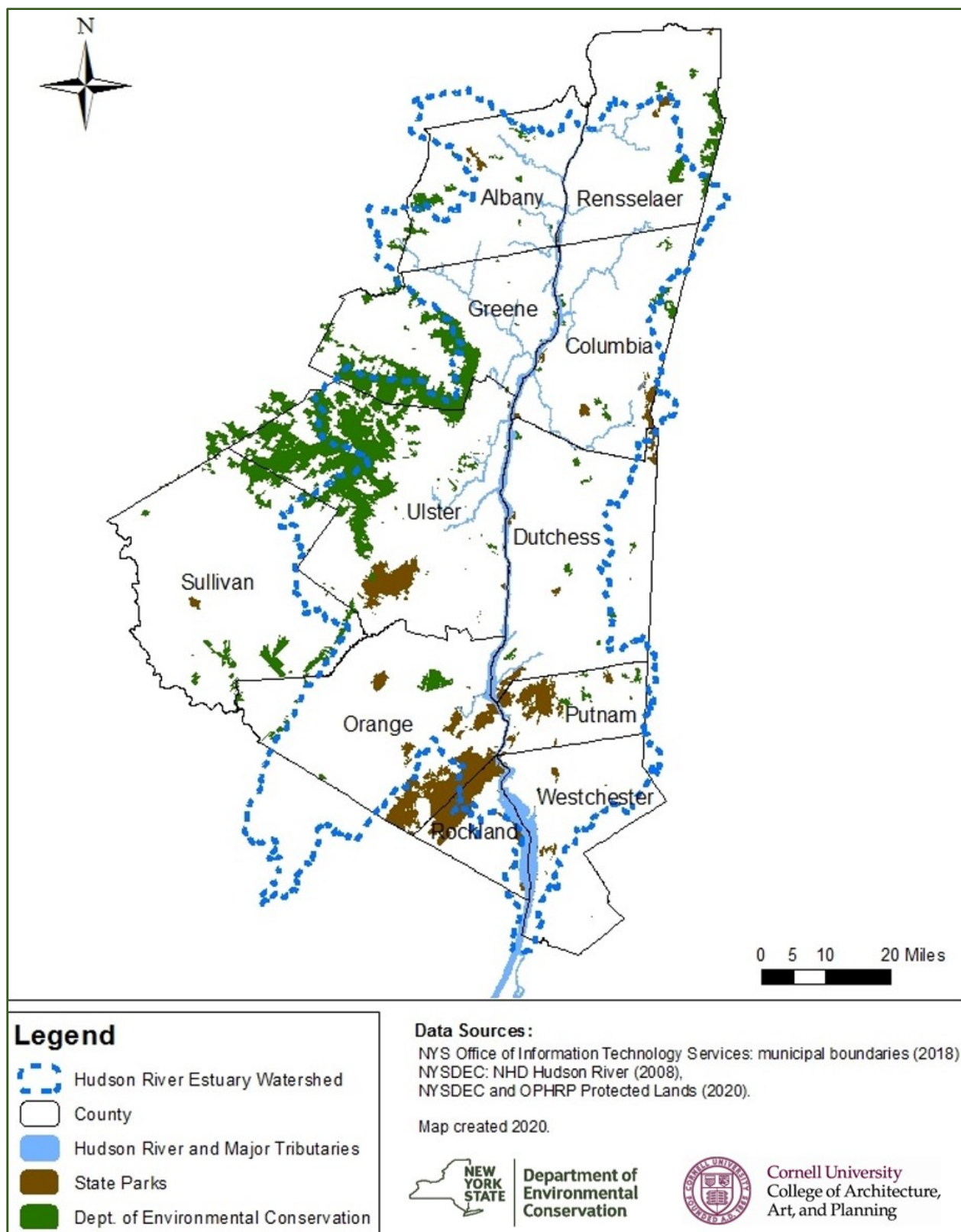


Figure 6. New York State protected lands in the Hudson River Valley.





Identifying Scenic Resources in the Community

The Art of Seeing (Scenic Resources)

"We may see coarsely or vaguely, as most people do, only seeing masses and unusual appearances, or we may see finely or discriminatingly, taking in the minute and the specific."

John Burroughs, The Art of Seeing

Although the ultimate goal of the scenic resource inventory is the protection of these valued community resources, at a minimum the process of identifying and assessing scenic resources presents the opportunity for communities to stop, literally and figuratively, and consciously see the scenic resources that residents often pass by on their way to and from other places. The act of documenting scenic resources is also an act of discovery and recording of their cultural landscape by residents, followed by an enhanced awareness and

appreciation of the character and landscape of their community. Many inventories of scenic views have been conducted as part of community or regional planning initiative. Typically, however such inventories have been surveys of the general public as to what they believe to be important scenic views in their community. These surveys can be very useful by both documenting and raising awareness of scenic resources.

Viewshed analysis identifies and describes the elements of a landscape and rates their scenic quality, and the interrelatedness of landscape elements. It includes assessing the physical and cultural character of the landscape, the geologic forces that have shaped it, and the historical and contemporary imprint left by human activity on the land. A key factor in assessing landscapes is public participation: the character of and the of importance landscape features reflect the values generally held by community members, and so they must play an integral role in viewshed analysis and identification of important scenic resources. Viewshed analysis has been an integral part of landscape design for centuries. In the Hudson River Valley, notable designers such as Andrew Jackson Downing and Frederick Law Olmstead, as well as artist Frederic Church at Olana, made effective use of viewshed analysis in formulating their designs, as did designers of the Taconic State Parkway.

In the 1960s viewshed analysis began to evolve into a more formalized process, driven in part by government agencies such as the US Forest Service. Faced with increasing concerns generated by the its dual mission of managing timber resources and providing recreational opportunities for the public, and the need to better protect the scenic character of the National Forests, the Forest Service took a leading role in developing methodologies for identifying, classifying and protecting scenic resources.

Key elements in viewshed analysis include:

1. **Landscape Character.** The scenic features within a landscape that give it a unique identity, and sense of place;
2. **Scenic Attractiveness.** The combination of landscape elements such as landform (topographic features such as hills, mountains, plains, valleys, gorges, cliffs), vegetation, water features, and cultural/human features, and how they relate in terms of their line, form, color, texture, and visual composition;
3. **Scenic Integrity.** A measure of the degree of intactness and wholeness of a viewshed, or the lack of disruptive/incompatible visual elements within the landscape, a landscape with minimal disruption is considered to have high scenic integrity;
4. **Landscape Visibility.** The values placed on a viewshed by the community and the relative importance to the community of various scenes, as well as to and the relative sensitivity of objects within the viewshed based on distance from an observer and the activity in which they are engaged.

The processes for identifying and prioritizing scenic resources outlined in this guide do not explicitly follow the processes developed by the Forest Service, primarily because the objective of this document is to provide guidance to lay citizens and boards working in the primarily small town and rural context of the Hudson River valley. But the Forest Service methodology and others are the underlying foundation. This guide is designed to assist communities the Hudson River Valley in taking the next step, to advance from documentation and appreciation of their key scenic resources to the protection of those resources for future generations. It provides a template for developing and carrying out a scenic resource inventory, utilizing a methodology that will assist in identifying important scenic resources, and prioritizing them for protection.

Public Input

Scenic resources are a reflection of community values, so the participation of residents from throughout the community is a critical component in identifying and

prioritizing the protection of community scenic resources. Community consensus on what constitutes a scenic resource, what the significant scenic resources in the community are, and what level of priority should be given to each resource, can ensure the successful implementation of a scenic resource protection program. A robust program of public participation should occur at multiple points in the process, including:

1. Developing a community consensus on what constitutes a significant scenic resource;
2. Identifying those scenic resources within the community, through a variety of approaches which may include public workshops and community mapping exercises, web-based interactive mapping, nomination by individual citizens utilizing uploaded photos or other methods of soliciting public input;
3. Developing a scoring methodology that can be used to prioritize specific properties for protection;
4. Deciding which protection tool is most appropriate for protecting the individual scenic resource.

In addition to ensuring consensus, public participation in identifying and mapping scenic resources in the community can also build a strong constituency for implementation of the protection plan and investment of public and private funding needed to implement the plan. It is also an opportunity to educate the community and private landowners of the mechanics, and the benefits, of preserving key scenic resources.

It's anticipated in this Guide that the primary tool for protecting the identified scenic resources will be conservation easements, maintaining the land in private ownership and also on the tax rolls. Land owners will still maintain control of access to their lands under a conservation easement. Some parcels

containing scenic resources, however, may be considered important enough to be acquired by a local government, as public open space. It is important where land is considered for acquisition that decisions be made as part of the scenic resource inventory process regarding what types of activities or uses of the land, and the extent of development, would be appropriate. With foresight, scenic resource protection can enhance public access to open space and accommodate a variety of compatible recreation activities as well.

Mapping Scenic Resources

There are a number of approaches to identifying and documenting scenic resources in the community. Today, with geographic information systems (GIS) technology, data and expertise available at the county level in New York, mapping is a relatively easy task to accomplish.

The objective of mapping is to document the key features of the landscape that assist in identifying and prioritizing the lands upon which scenic resources are located. Also important are lands within the viewshed of a scenic resource – lands across which people may look across to view the scenic resource, and the lands that may be viewed from the scenic resource.

Landscape attributes which should be mapped include:

1. **Existing Land Use.** The existing land use within the community is very important information. The map should show at a minimum, developed areas within the community, undeveloped forested and other open space areas, and agricultural areas within the community. More detailed breakdowns of land use, separating out residential, commercial, industrial and other types of land uses are useful, but not necessary.
2. **Ecological Resources.** These can include: mature woodland, streams, wetlands and other waterbodies, steep slopes, presence of threatened

SHPO as being sensitive for archaeological resources should be mapped. As the scenic resource inventory progresses, and undocumented buildings or sites are identified, they could be added to this map as local historic resources.

3. **Public Open Space.** Existing public parks and preserves, as well as land trust holdings/preserves open to the general public should be mapped. Often they protect, or are a scenic resource in their own right. They can also be vulnerable to inappropriate development on adjacent lands that may degrade their quality or users' experiences.
4. **Agricultural Land Resources.** Agricultural lands are an integral part of the Hudson River landscape, to be viewed and enjoyed, but they also create numerous vistas toward scenic resources enjoyed by the public.
5. **Historic Resources.** Sites and structures that are listed on the National or State Registers of Historic Places, or listed by the State Historic Preservation Office (SHPO) as eligible for listing should be mapped. Also, areas identified by

Mapping should be done on a GIS tax parcel base map with roads and highways. Overlaying attribute data on top of tax parcels is the ideal way to organize the various map layers. Since the ultimate objective of the scenic resource inventory is to identify specific parcels of land for protection, the tax parcel boundary, area and other parcel attribute information is important.

In communities or counties that have completed natural resource inventories (NRIs) sponsored by the Hudson River Estuary Program, much if not all of the mapping is readily available and adapted to a scenic resource inventory. Below are examples of mapping from towns in the region. (Figures 7, 8)

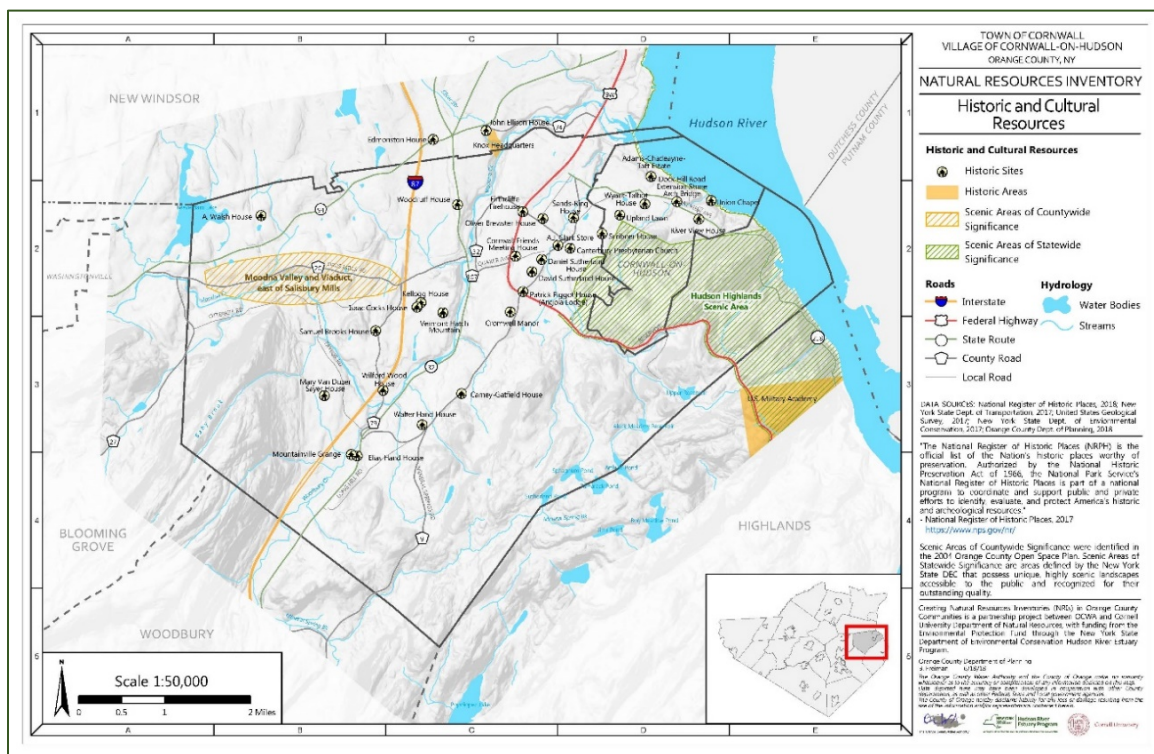


Figure 7. Historic resources in Cornwall

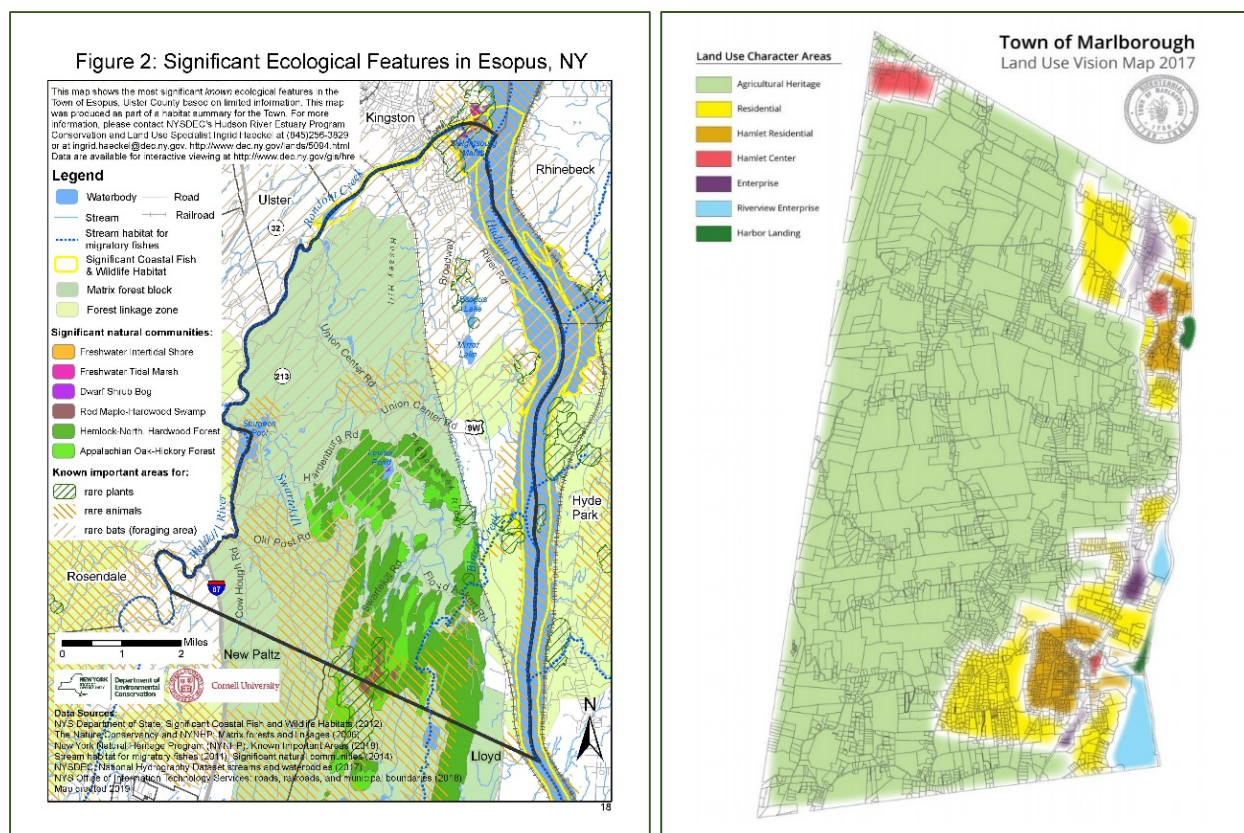


Figure 8. Significant ecological features in Esopus (left) and land use map, Marlborough (right).

Prioritizing for Protection

The biggest challenge in any effort to protect scenic resources will be the limited amount of available funding that is available for such efforts, compared to the amount needed to protect all assets. As a result, communities desiring to protect their scenic resources inevitably must develop some method for prioritizing which lands should be targeted first. Key attributes of the landscape that should be assessed in a scenic resource inventory include:

1. **Ecological Resources.** Streams, wetlands and lakes often indicate diverse and visually-appealing environments within an area. In addition to contributing to the scenic quality of the landscape, their ecological functions are also

vulnerable to development impacts that could degrade their scenic value.

2. **Scenic Resources Adjacent to Public Highways.** These can be assessed using available traffic volume data, as well as the length of frontage on a public road or highway, or a publicly visible or accessible river or stream shoreline. Visitor data from various state parks and historic sites can also be utilized to determine the relative importance of a scenic resource. With the number of limited access highways carrying very high volumes of traffic through the region, communities should consider the views from such roadways and make a determination early in their inventory process whether or not those views are of importance to the community.

Case Study: Creating a Scenic Resources Map for the Town of Putnam Valley

The Town of Putnam Valley Scenic Resources map was funded through a Hudson River Valley Greenway grant and was produced as part of the Town's **Natural Resources Inventory** (2018). The identification of significant scenic resources was conducted with public participation combined with GIS mapping. In a pair of public workshops organized by the Hudson Highlands Land Trust and Putnam Valley Commission for the Conservation of the Environment (CCE) participants identified "significant scenic resources" in Putnam Valley through facilitated discussions and mapping exercises. The information and commentary gathered in the workshops was supplemented by use of an online web map that allowed members of the public to identify scenic points, make comments and upload photos they took.

Using the input from the CCE, public workshops, and online canvassing, ten "high value scenic areas" were identified. These areas were defined as being "public and private lands that include features recognized, visited or viewed and enjoyed by the community for their inherent visual qualities." A viewshed analysis was then completed for the 10 high value scenic areas in order to determine probable publicly accessible locations (view spots) from which these scenic resources could be viewed. Use of gradient colors on the map enables readers to distinguish between scenic resources that are visible from one location, or multiple locations. The map also categorizes the scenic resources as:

1. High Scenic Area Viewing Spot: a publicly accessible viewing spot from which at least one "high value scenic area" is visible;
2. Scenic View/Area - Partial Public Access: a viewing spot from which at least one "high value scenic area" is visible, for which there is partial public access;
3. Viewable Scenic Area-Private-No Public Access: a feature or location on private property that is visible from one or more viewpoints, but not accessible to the public.

In addition, some 47 "scenic areas" and "scenic viewspots" were identified throughout the Town and mapped. These are sites that are recognized for their inherent scenic qualities, or sites from which one or more scenic resource can be viewed. Also, two roads that are notable for the number of scenic areas or scenic viewspots that are located along them, Sunken Mine Road and Peekskill Hollow Road, are identified on the map as scenic roads.

The Town of Putnam Scenic Resources Map does not carry any regulator authority. Nonetheless, it is an extremely valuable planning tool for municipal officials and citizens in that it reflects a community consensus on what the valued scenic resources are in the community, and shows them on a map. This can be extremely useful in numerous land use decisions, including zoning amendments, subdivision and site plan reviews, as well as in SEQR environmental impact reviews. Should the Town of Putnam Valley decide on a program to better protect their scenery, this map will be a critical tool in identifying those resources.



While there may be some views from the expressway that are attractive to travelers, they may be of little relevance to local residents. In assessing such views however the community should consider what the view communicates about its character, and is it a view that might leave a memorable impression of the community on travelers.

3. **Proximity to Already-Preserved Parcels.**

Already preserved lands include municipal, county and state parks and preserves, land trust parks and preserves, and lands that may already be protected by conservation easements. Contiguity is an important objective of land protection programs: large tracts of contiguous natural or agricultural open space create a critical mass of protected areas. In order to maintain a community's scenic landscape, it is important to consider the scenic continuity between parcels. Protecting parcels containing scenic resources that border already-preserved parcels can create larger, more connected swaths of protected lands.

4. **Parcel Size.** Parcel size is an important factor in assessing a scenic resource for protection. Large tracts of land under single ownership generally reduce the effort needed to negotiate a protection mechanism for the land, compared to protecting smaller parcels under multiple ownership. Many smaller parcels are also occupied all or in part by some sort of development, that detracts from their scenic value. In terms of cost, on a per acre basis, the acquisition costs for a conservation easement or outright purchase decreases with increasing parcel size.

5. **Agricultural Land.** The agrarian landscape is a defining feature of the Hudson River Valley, and contributes greatly to the scenic beauty of the region. Farmland not only provides enjoyment to travelers on adjacent roads and highways, but also to visitors to numerous higher viewpoints throughout the region, from Olana State Historic Site, to Schunnemunk Mountain. But farmland is very often the least expensive land to develop, making it an attractive site for real estate interests. Farmland visible from public spaces should be

assessed as part of an inventory, using its visibility, soil quality as well as size.

6. **Historic Sites.** Historic sites are an important part of a community's scenic character and can provide a point from which the continuity of the area's scenic character is extended. As such, properties next to historic sites also contain scenic value due to their ability to protect the character surrounding the site. Historic sites and adjacent properties that are listed on a local, state, or national registry, or historic districts, should be included in the inventory. Public input can help identify other historic resources, not listed in the above-mentioned databases.

7. **River Frontage.** Much of the Hudson River shoreline and other larger streams such as Rondout Creek, Fishkill Creek and Catskill Creek are highly visible and valued scenic resources. Their shorelines are also highly attractive building sites for homes and thus substantial stretches of shoreline are vulnerable to development. This development may result in clearance of the native vegetation that underlies the scenic beauty of these riparian corridors, disrupting habitat, and introducing discordant structures into scenic viewsheds. Some communities may wish to document river frontage and assess parcels for their scenic value.

8. **Parcel Slope.** Parcels with steeper slopes (10% or greater) are also attractive development sites due to the potential (scenic) views owners are afforded. At the same time, development on steeper slopes can cause environment issues such as increased erosion and sedimentation, and, in some locations landslide danger. Building on wooded slopes might also entail clearing of large areas of woodland – to create views- and large, insensitively designed and sited structures can have a substantial negative impact on scenic viewshed in the community.

9. **Development Pressure.** Scenic resources in areas with higher development pressure are more vulnerable than others. In addition, if they are located in growing residential areas, the parcel(s) where the scenic resource is located may already

be a valued open space resource for the surrounding community. Indicators that can be utilized in assessing potential development pressure are the relative amount of land in the surrounding area that is developed, the number of homes or other development within a specific distance (1/4 to 1/2 mile), and the zoning for the parcel and surrounding area. If the land is zoned for development, it should be considered vulnerable to being developed.

No two communities in the Hudson River Valley are alike, and no two scenic resource inventories will be identical in character. There are a number of other attributes that a community can utilize in assessing the importance of scenic resources within their boundaries. These include: presence of large woodland tracts, habitat for rare animals, proximity to downtown, community input, designated historic district, presence of a community or institutional use,

presence of notable natural feature (waterfall, cliff), presence of a scenic vista; proximity to public trail, visibility from a landmark.

Figure 9 below shows examples of parcel scoring systems for several previously completed scenic resource inventories. It shows the maximum number of points awarded to each of the attributes shown across the top of the matrix. In practice, individual parcels may be award points in increments of between 1 point and 5 points. As an example, in Hyde Park parcels in “Active Agriculture” received 2 pts while all others received 0 points; parcels in Lloyd received 10 points while all others received 0 points; in Marlborough, farmland received 5 points while non-farm lands received 0 points. The attributes chosen and point assigned should reflect the priorities of the community.

Examples of Criteria Scoring in Test Municipalities																				
Criteria Scoring (Maximum Score)	Parcel Size	Proximity to Preserved Parcels (1)	Wetland & Riparian Zones (2)	Historic Sites	Road Traffic (3)	Road Frontage Ratio	Zoning (5)	Active Agriculture (4)	Farmland/Soil Quality (4)	Land Value	Parcel Grade/Slope	Population Density	Road Frontage	Visibility From Public Space	Woodlands	Proximity to Town center	River Frontage	Community Input	Community/Institutional Facility	Designated Historic District
Municipality																				
Beacon	10	10	10	10	10	20	10			10			10		10	10		10		
Cornwall	10	5	15	10	15	10			15		10	10		15						
Esopus	20	30	15		30				20				25				30			30
Hyde Park	10	5	15	10	15	10	5	1		20	5	5	10	20	15					
Lloyd	10	10	10	10	10	10	10	10				10			10	10		10	10	
Marlborough	10	5	10	10	15	10		5	15	20	5			15						
Poughkeepsie City	1	1	3	3			1										2		1	1
(1) Can be measured in terms of distance to preserved parcel, or length of a shared parcel boundary.																				
(2) For Esopus, this was changed to "River Frontage" to emphasize focus on viewshed as opposed to status as ecological asset.																				
(3) In Esopus, parcels visible from 9W were assigned 30 points due to its importance and high volume of traffic.																				
(4) Farmland/Soils Quality scores are based on NRCS/USDA soil surveys & soil quality classifications; Active Agriculture refers to land observed to be in agricultural use.																				
(5) In Beacon, parcels with higher intensity uses such as urban residential & commercial = 0 points; low density residential/less intense permitted uses = 10 points. In Poughkeepsie, parcels located within Poughkeepsie Innovation District (PID) received 1 point.																				

Figure 9. Examples of criteria scoring in scenic inventory test municipalities.

The Tools for Protection

There are a number of tools available for communities to implement their scenery conservation goals and objectives. The most important tools are comprehensive plans and zoning ordinances, codes or laws. The comprehensive plan provides a vision for the future, and the foundation for effective zoning codes to guide development in accordance with that vision. The comprehensive plan in New York can be a collection of sub-plans and other documents that together provide the critical visions. These can include natural resource inventories, agriculture and farmland protection plans, park and recreation plans and transportation plans, open space indexes, and of course scenic resource inventories.

In addition to zoning, municipalities are also empowered to adopt regulatory tools such as subdivision regulations, site plan review, design guidelines or standards, street design standards and zoning overlay districts. The key to success in land use regulations is comprehensive but also clear and concise regulations. Standards must be flexible, easily understandable by both applicants and lay board members, and easily translated into design and construction.

Subdivision regulations should go beyond the traditional standards for configuring lots, street design and infrastructure standards. They should include also requirements for identifying and protecting important ecological assets on a site, including important views, and authorize planning boards to require in certain cases the use of cluster subdivision design. This is a particularly effective tool for protecting scenic views. It is important however to have good design standards in the subdivision regulations for cluster subdivision

design to ensure the community's objectives are achieved.

These tools and others that can supplement municipal planning and land use regulations, such as conservation easements and land acquisition for protection purposes, are discussed below.

Local Conservation Advisory Councils and Conservation Boards should have an active role in developing and implementing the tools for protecting local open space and scenic resources. Those local advisory bodies often have unique expertise in ecology and natural resources that can be helpful to municipal officials and boards.

Conservation Easements

Over the past several decades the conservation easement has become a key tool in the protection of open space lands, particularly agricultural lands and significant natural open space assets. Briefly explained, the conservation easement is a voluntary legal agreement between an owner of a parcel(s) of land and another party (i.e. a government entity or land trust). The landowner relinquishes certain rights to utilize the land, most commonly the right to develop it for other purposes, in order to protect publicly valued attributes, such as productive agricultural land, forest land, wildlife habitat, riparian resources and water quality, historic and scenic resources, as well outdoor recreation and education use.

The conservation easement is a legal document that is usually perpetual in nature and runs with the land: the restrictions on use of the land pass down from one owner to the next. Landowners retain many of their other rights that might include the right to own and use the land, control access to the land, sell it, and pass it

on to their heirs. Every conservation easement is a unique legal document, tailored to the interests and needs of both the landowner and prospective easement holder. Some commonly restricted activities include the building of structures, vegetation clearing, commercial mining and the dumping of debris.

One important municipal benefit of conservation easements over fee-simple ownership is that the land stays on local tax rolls. While an easement may remove the opportunity to develop the land further and may reduce the value of the land, the property owner will likely still pay taxes unless the owner is a tax-exempt entity such as a land trust. In some cases, the application of a conservation easement on a parcel of land may have no significant effect on the property's value. In some cases, an easement on one parcel may also increase the value of adjacent properties, which are now better protected from undesired development. The conservation easement generally does not affect the value of existing improvements on a property.

While the conveyance of the development rights to a parcel of land is often done in exchange for monetary compensation, donations of conservation easements by landowners is also common. For some, it is a philosophical gesture: their personal commitment to passing on a unique resource to future generations; for others, there are certain tax advantages to a full or partial donation of the value of a conservation easement. Particularly for farmers, the conservation easement can also be a useful estate planning tool, by providing a source of cash that can be utilized to reduce the cost to a child or grandchild of acquiring the farm interests of their siblings.

Conservation easements, like fee-simple ownership, require stewardship over time. The Land Trust Alliance requires land trusts to monitor their

easements annually, which includes both a site visit and report as well as additional follow-up in the case of a violation. While municipalities are not required to monitor their conservation easements this regularly, when violations occur it is easier to resolve them when they just occurred. For this reason, partnership with a local land trust in purchasing and stewarding conservation easements is the best possible outcome. This might require direct payment to land trusts for their services, since municipalities often don't have the technical expertise and/or capacity to monitor easements themselves.

Land Ownership

When attempting to preserve a parcel from development, the most straightforward action a government entity or non-government organization such as a land trust can take is to purchase a property outright. Property acquisition is also generally the most expensive option however it can be the most effective method for conserving a specific resource.

Acquiring ownership of lands however should be utilized sparingly, such as in cases when other alternatives for protecting the land may not be possible, or when the land may also have high value for public access/recreational use, or scenic value. There are the larger costs associated with outright acquisition, compared to only acquiring development rights to a parcel. There are also long-term costs of land ownership, such as maintenance of facilities that are constructed on the parcel (even limited facilities). For this reason, partnership with a local land trust is recommended, especially if the property is not intended to be used as a municipal park. Finally, acquisition of a parcel can remove it from the pool of taxable properties in a community. For communities with already stretched fiscal capacities, removing

property from the tax rolls may not be an attractive or even feasible option.

Land Use Planning

The comprehensive plan can be an effective tool for communities in a number of ways. The plan inventory and analysis process, at the beginning of plan formulation, can be utilized to identify critical scenic assets and document their importance. The plan goals and objectives can be utilized to articulate clearly the community's desire to protect its scenic resources. Finally, the plan recommendations, in the form of specific actions, strategies and policies can outline the where, how and when of implementing scenic resource protection. For a Town Board, the plan can provide the basis for better zoning to protect such resources, as well as guide decisions regarding acquisition of lands, or conservation easements of key parcels to protect scenic views.

A comprehensive plan can provide the Planning Board and Zoning Board with both critical guidance as they review development proposals and zoning variances. More importantly the comprehensive plan can provide the planning board with solid ground upon which it can contest and force design changes to development proposals that may threaten scenic and open space resources. While the identification and analysis of and recommendations regarding scenic resources in a community can be components of a larger comprehensive plan, a standalone scenic resource inventory and protection program can be completed

and adopted independently of the comprehensive plan, and by reference become part of it.

Another planning tool that municipal governments can take advantage of to call attention to and better protect their scenic and other ecological assets are Critical Environmental Areas (CEAs). Local governments can designate specific geographic areas within their boundaries that have one or more exceptional or unique characteristics. These can include: a particular natural setting, such as areas of locally important aesthetic or scenic quality; or an area that contains significant agricultural, social, cultural, historic, archaeological, recreational, or educational features.

Although they do not change the status of the land or its zoning, CEAs are useful both to highlight for municipal decision makers, local residents and prospective developers the presence of an ecological open space resource worthy of protection. They can be especially effective in the State Environmental Quality Review (SEQR) process, as the potential impacts of any Type I or Unlisted Action on a CEA and its attributes are a relevant area of environmental concern that must be evaluated.

According to the DEC, there are over 80 CEAs designated within the Hudson River region. Several municipalities in the region – the Town of Greenburgh, Village of Larchmont, Village of Piermont and Town of Stanford have identified specific scenic resources within their boundaries and designated them as CEAs.

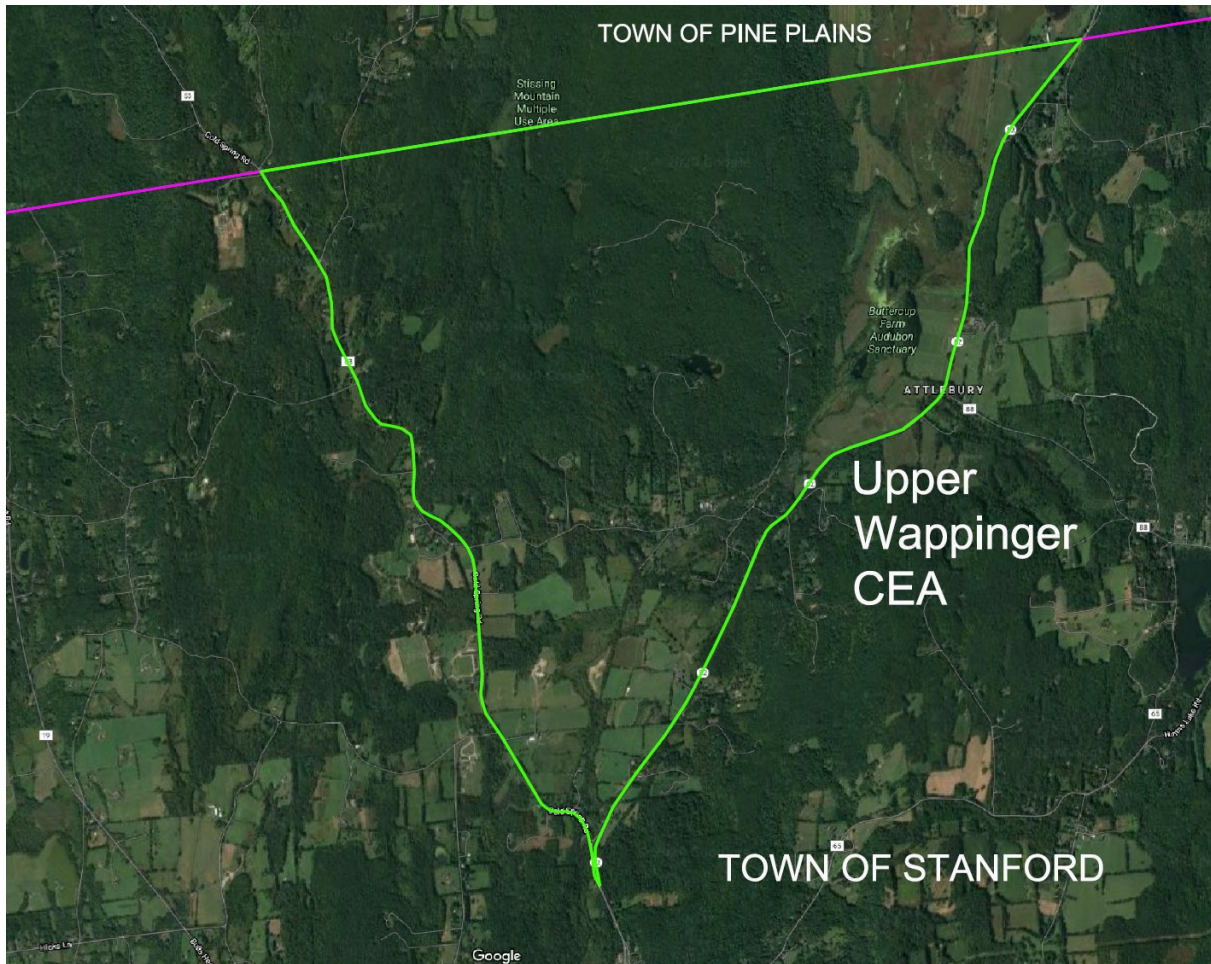


Figure 10. The Town of Stanford’s Upper Wappinger CEA encompasses a variety of ecological assets including agricultural lands, wetlands, forest lands and habitat, as well as a views of the rural agrarian landscape from NYS 82 and CR 53, and from the DEC Stissing Mountain Multiple Use Area.

Regulatory Approaches - Zoning

Regulatory tools include the state and local laws that agencies and communities adopt and administer. Land use regulations such as zoning and site plan review are the two primary regulatory tools adopted by local government to control development. Carefully crafted regulations are an available tool that, thanks to municipal home rule, allow municipalities to protect scenic and natural resources while at the same time accommodating new development in the community.

With careful consideration and application, a community can protect its critical open space resources by channeling major growth and incompatible development away from important natural resources and into more appropriate areas. Controlling land use types, the density and intensity of land uses, and character of land uses are three effective approaches that are already in use in many Hudson River Valley communities. Three specific approaches

that have proven effective are: overlay zoning; fixed ratio zoning; site plan/site development review.

Design standards can effectively support zoning and other regulations to ensure that new development also protects scenic and natural resources. Design standards can include standards for commercial development, industrial development as well as residential development. They can include provisions such as siting buildings outside of identified viewsheds, minimum landscaping requirements, and screening of incompatible elements such as loading docks, garbage dumpsters, and parking lots.

An *overlay zone* is a zoning district which is applied over top of a previously established zoning district in areas that may have specific features or challenges not addressed by the underlying zoning. The overlay zoning can apply additional or stricter standards and criteria for the properties within the overlay district that address the special conditions. Examples of such special conditions include, but are not limited to steep slopes, wetlands and other riparian features, wildlife habitat, scenic views, public water supply areas, or historic sites. An overlay district may impose specific design standards, different lot size and setback standards, or limits on the types of development

permitted. In some cases, an additional level of review, such as site plan review or special use/special permit review may be required.

Viewshed protection overlay districts can be crafted for residential zoning district to ensure that future development does not block key viewsheds, or create undesirable visual impacts within viewsheds.

One of the longstanding challenges to protecting important open space lands has been the control of density. The common method of very large lot dimensional requirements, such 5-acre or 10-acre or larger minimum lot sizes, plus excessive road frontage and yard setback requirements, have been effective in preserving a rural character. While this approach may maintain a sense of rural character in a community, such large lot sizes can lead to excessive fragmentation of agricultural lands (“too small to farm, too large to mow”), woodlands and wildlife habitat. The *fixed-ratio* zoning concept was developed in agricultural counties in southern Pennsylvania in the 1970s as a way of providing farmers with the option of occasional sales of land for development, without triggering large scale development

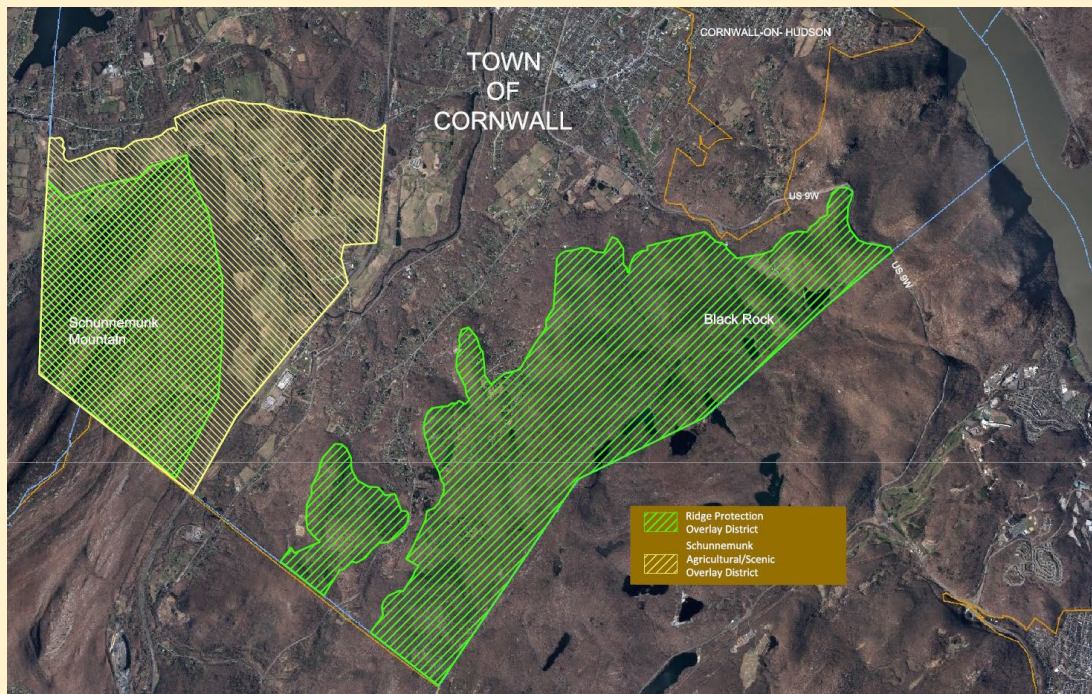
Case Study: Town of Cornwall Overlay Districts

The Town of Cornwall has two overlay zoning districts designed to protect and preserve the scenic character of the community. These overlay districts supplement the underlying zoning requirements of the Agricultural Rural Residential District (ARR) and the Mountain and Conservation Residential District (MCR), which permit agriculture and low density residential development, and a limited number of low impact, non-commercial and non-industrial uses. With the exception of banning extractive industries in the ARR district, these overlay districts do not affect the uses permitted, or the density and intensity of development, but instead provide additional design standards to be followed.

Altogether the overlay zoning districts cover about 6,650 acres of land, or about 42% of the Town.

The Ridge Protection Overlay District (RPOD) was enacted to better protect the scenic quality of the prominent ridge extending westward from Black Rock and Route 9W, and also the slopes of Schunnemunk Mountain. These areas are covered with steep slopes, and are heavily wooded. Supplemental design standards for the RPOD include: locating new structures to the extent possible so as to not be visible from state, county or interstate highways; minimizing tree clearing and avoiding creation of breaks in the natural ridgetop treeline; use of earth-tone or neutral colors and non-reflective glass in new construction; use of native plant species in landscaping and screening. The RPOD is especially important, as the areas covered by it are prominent from many locations throughout the community, and development must be sensitively designed and sited to mitigate potential visual impacts.

The Schunnemunk Agricultural/Scenic Overlay District is designed to protect the historic character of the landscape and the agricultural lands at the base of the mountain, including Moodna Creek, and extending east to I-87. The attributes to be protected within this overlay district include scenic resources, architectural and other resources of historic interest, but also the active use of existing tracts of agricultural lands and high-value agricultural soils within the overlay district. The primary tool for accomplishing these objectives is the use of conservation subdivision design to ensure that new residential development is sited in a manner that preserves to the extent possible the rural agrarian character of the area (see figures 11, 13).



or farmland fragmentation. Also known as “density averaging,” fixed ratio zoning can be very effective also in protecting ecologically important and scenic lands.

Fixed-ratio zoning differs from the conventional approach of controlling minimum lot sizes, instead controlling the number of lots permitted to be subdivided off a parent tract of land. It also differs in that it sets a maximum permitted lot size for non-agricultural or non-open space uses, as the means to control fragmentation of lands. This “one lot per X acres” approach, – e.g. 5 acres... 10 acres... 20 acres of land – has been proven to be a simple but effective way to control density in rural areas and prevent land fragmentation.

In an agricultural area, a typical scenario would be to have a maximum permitted lot size of 2 acres, or the minimum size required to meet health department rules for on-lot water and septic systems. With density set at one lot for each 10 acres of land in a hypothetical parent tract of 100 acres, up to nine 2-acre lots would be permitted to be subdivided off the parent tract. These lots however would consume 18 acres of the 100 acres, leaving 82 acres in one large, contiguous tract.

In areas where the objective of fixed-ratio zoning is to protect sensitive ecological or scenic areas, maximum lot size is not as important, as the need or desire to protect working agricultural lands is not present. An example is shown below, where a 136-acre hypothetical woodland tract of land containing extensive wetlands is subdivided in accordance to conventional zoning (with 2.5-acre minimum lot size) and in accordance with a 1:10 fixed-ratio zoning scenario (1 lot per 10 acres). The local zoning

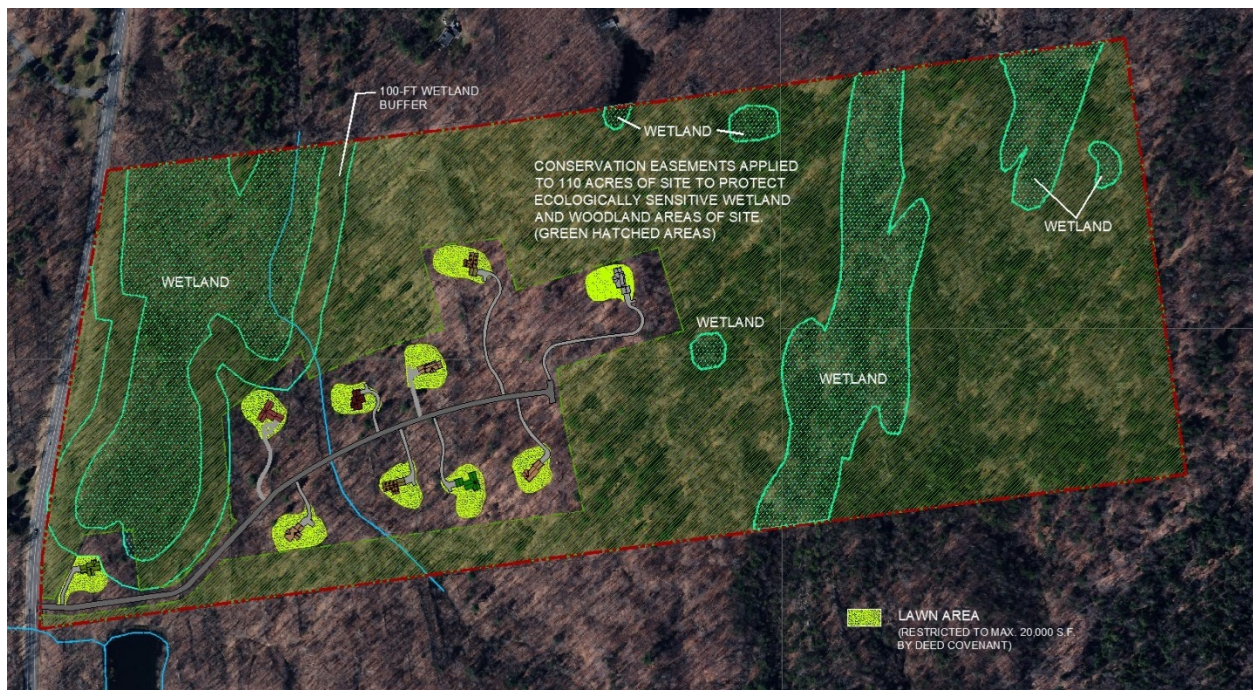
mandates that wetland areas not be included in calculating potential density of a tract of land, which reduces the base acreage to 107 acres, or a maximum of 42 lots under the conventional subdivision, and 10 lots under the fixed-ratio scenario (Figure 11 below).

The benefit of the fixed-ratio approach to zoning and subdivision in protecting critical ecological and scenic resources is evident in the two scenarios. Under the fixed-ratio scenario, some 80% of the parcel can be permanently protected utilizing a combination of lot sizes, limits on lot clearance for lawns and landscaping, and use of conservation easements. Even though the presence of wetlands protects a substantial portion of the parcel from development under the conventional zoning the 42 lots permitted result in the clearance of almost 50% of the parcel.

This fixed-ratio approach can work well because farmers and other rural landowners are generally not interested in seeing their land developed, but instead want the ability to sell off an occasional lot, as needed or desired. The fixed-ratio approach can satisfy this desire, over a period of years, while maintaining contiguous tracts of open space. It can eliminate the need for costly and environmentally disruptive infrastructure that may be necessary to serve the very large lots that can be created under zoning with minimum lot sizes of 5, 10 or more acres. Coupling fixed-ratio density controls and lot size limits with other tools such as flag lots can permit greater flexibility in locating new development in less obtrusive location on the parent tract, protecting prime agricultural land, ecologically sensitive areas such as woodlands, wetlands and riparian corridors, as well as scenic views. By clustering future development in one area of the parent tract, large contiguous expanses of the parcel can be preserved.



Figure 11. An example of application of fixed ratio zoning to protect ecologically sensitive woodland and wetlands. Sketch above shows the subdivision of a 136-acre wooded tract with extensive wetlands into 42 lots as permitted under the zoning regulations (136 ac. minus 29 ac. wetlands = 107 ac. of developable land). Sketch below shows a subdivision in a district where 1:10 (1 lot per 10 acres) fixed ratio zoning has been implemented. Ten house lots are located along a short cul-de-sac road, impacting approximately 20% of the site and preserving through conservation easement some 110 acres or 80% of the site. Note that the lots are not 10 acres or larger, but that 10 is the number of lots permitted, given 107 acres of developable land.



Fixed-ratio zoning also relatively simple to administer, particularly for small local governments without substantial capacity for administering complex growth management regulations. For each parent tract parcel in a new zoning district a specific number of permitted lots is recorded at the adoption of the new district. Subdivisions are then tracked as they are approved and the new lots recorded, and number of future permitted lots adjusted downward.

Regulatory Approaches – Cluster Subdivision

Local planning boards in New York are permitted to utilize the cluster subdivision design approach for residential development as a means of protecting open space while accommodating development. A cluster plat modifies the existing dimensional requirements set forth in the zoning law and proposes lots that are smaller and closer together to obtain the otherwise allowable density, such as the number of housing units, while conserving areas of open space within the subdivision. (Fixed-ratio zoning sets density and maximum lot size limits, but because subdivisions often involve a few lots or less, and no public infrastructure, they can be treated as conventional subdivisions.)

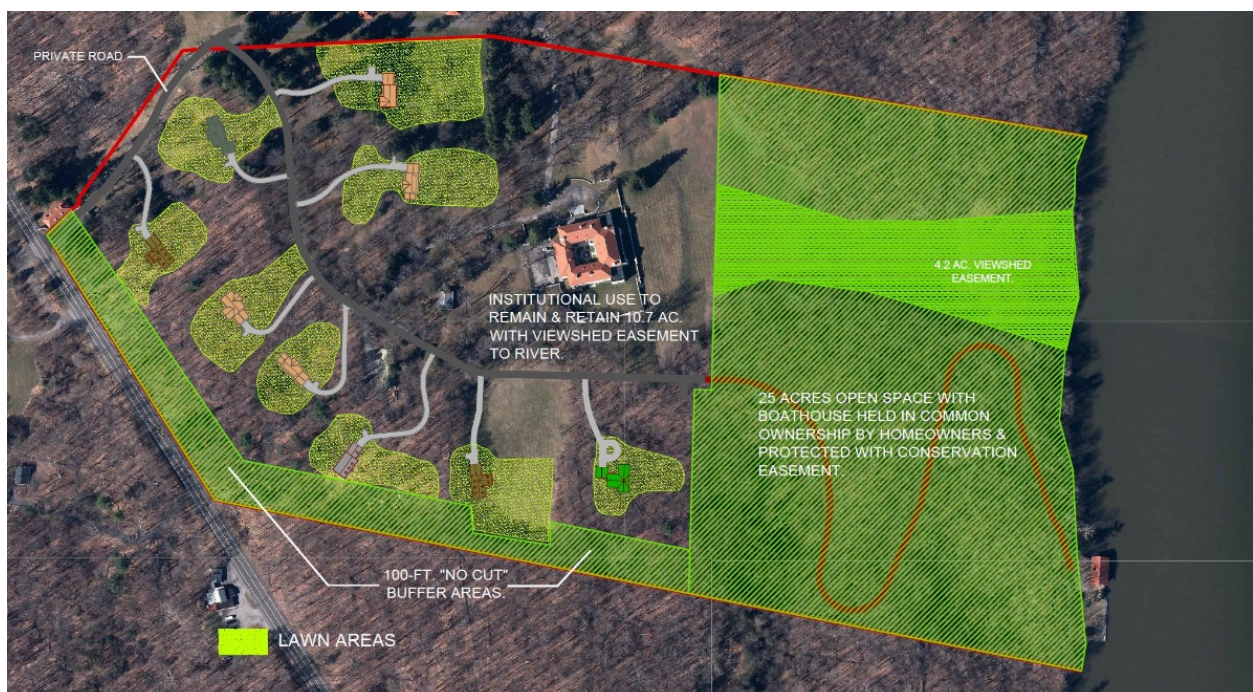
Cluster subdivision design is a means of promoting flexible design that preserves the natural and scenic qualities of open space. It can be utilized to protect scenic views, ecologically sensitive lands and

agricultural land by increasing dwelling unit density on some portion of the development area for the purpose of leaving open space in other areas. It is a design approach to development that permits the adjustment of lot sizes, but does not increase the overall density of development on the parcel above what is permitted by zoning. In addition, cluster design may provide needed space for walking trails and bike paths, both for within the subdivision and connected to neighboring communities, businesses, and facilities, reducing reliance on automobiles. Figure 12 below illustrates the concept of cluster subdivision on a site in the Town of Esopus RF1 zoning district.

Also known as *conservation subdivisions*, the cluster design approach promotes environmentally sensitive and efficient uses of land, particularly in rural areas where development densities tend to be lower. Cluster subdivision design can be used to preserve active agricultural lands and ecologically sensitive lands. The design approach can also be used to protect unique or sensitive natural resources such as floodplains, wetlands, streams, steep slopes, woodlands, and wildlife habitats, but can also preserve important historic and archaeological sites. Undeveloped land on the site can be permanently protected by a conservation easement, fee-simple purchase or through a home owner association.



Figure 12. An example of how a conservation subdivision could be designed for a 61-acre site in an RF1 zoning district in the Town of Esopus. The permitted zoning density in the RF1 district is 1 house per 5 acres. The top illustration shows a conventional plat with lots of 5 acres or more in size and approximately 2,800 feet of new roadway. In the bottom scenario 11 new homes sit on lots ranging in size between 1.5 and 2 acres in area. The original large home sits on a 33-acre lot that includes the riverfront, much of the woodland and the meadow, which would be protected from further development by a permanent conservation easement. The new homes closer to the river are sited to take advantage of the natural slope of the land, looking eastward over small meadows and treetops to the east shore of the Hudson, while preserving a visual buffer between them and the river.



Regulatory Approaches – Site Plan Review

The site plan review process is another useful growth management tool for scenic resource protection is the site plan review process. Site plan review can be included as part of an overall zoning code, or it can be a separate, standalone local law and process. Some rural communities have adopted site plan review, but not full zoning codes. The types of development that are subject to site plan review include commercial land uses, industrial land uses (which can include large scale wind and solar energy arrays), institutional land uses (non-schools, churches, museums, theatres, fraternal organizations) and multiple family housing and other non-residential developments. Municipal review of proposed development site plans usually focuses on means of access and vehicular and pedestrian circulation on the site, parking facilities, location and size of structures, provisions for landscaping, buffers to adjoin properties, impact on adjacent land uses, impact on the environment, and other elements related to the health, safety and general welfare of the community.

The site plan review process can be very effective in preserving the character and landscape of the community, including scenic resources, if the regulations include specific design standards that developers must follow. These can include, but are not limited to minimum yard setbacks, requirements for landscape plantings, such as for parking lots and screening service area of the site, the location of parking facilities and buildings on the site, signage and outdoor lighting. If the community has an adopted

scenic resource inventory or natural resource inventory, these can be consulted and help guide the approval process.

Vegetation Management

Vegetation management is the practice of planting and controlling vegetation growth as a means of framing landscape views, especially in landscapes that are designed landscapes, such as those designed by Andrew Jackson Downing and Frederick Law Olmstead, and others. But there are many scenic views throughout the region, along public roads as well as from parks and other locations. Failure to maintain views from rights-of-way through the use of selective clearings can result in the loss of the scenic views along highways, and reduced enjoyment of the public users of the highway. Selective clearing involves the careful selection of trees and brush to be removed from the highway right-of-way, or the cutting the lower branches of trees in order to create window out into an attractive landscape. In some cases, it may require the cooperation of an adjoining landowner, for instance to thin out the vegetation in a farm hedgerow to open up a view.

Vegetation management must be done with extreme care and sensitivity². The micro landscapes that are created by mature trees and other vegetation along and arching over a road are critical elements of the cultural landscape of the Hudson River Valley. They are also at risk due to highway “safety” engineering, and excessive use of road salt. Forest regrowth in the region has also created visual barriers that screen undesirable landscapes and discordant features in the

² See “*Creating and Maintaining Hudson River Views: Handbook for Landowners*,” recently been released online by the Hudson River Estuary Program.

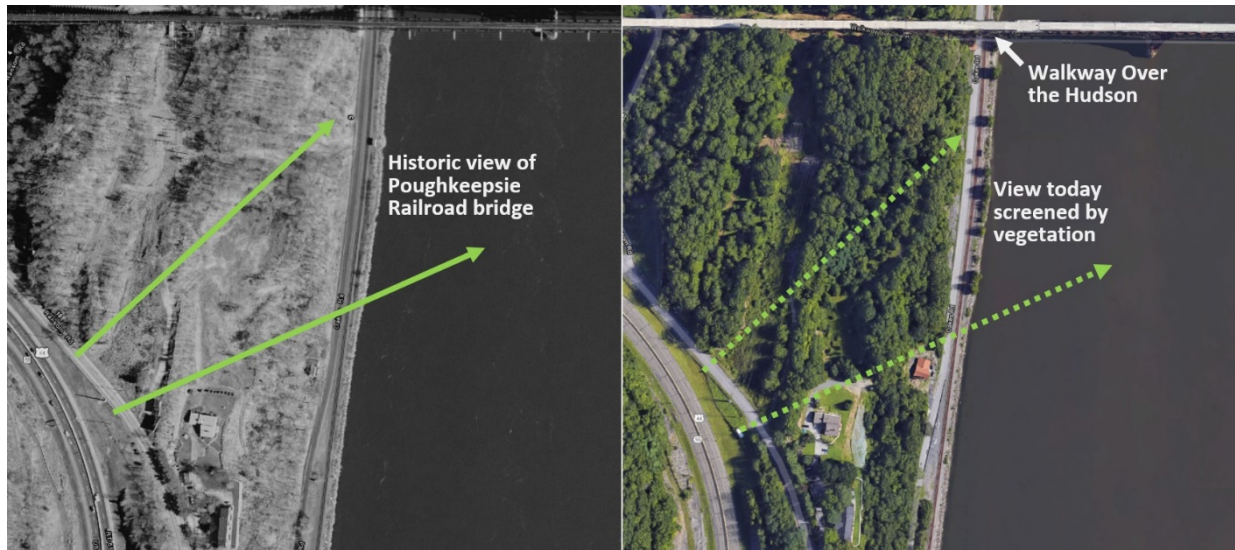


Figure 13. A “lost” view of the Walkway Over the Hudson and Poughkeepsie from the western approaches to the Mid-Hudson Bridge. Satellite imagery from 2001 (left) and 2019 (right) shows transition from open field and meadow to emergent woodland blocking the view today.

landscape that detract from residents’ and visitors’ enjoyment of it. Another issue that must be addressed in any vegetation management issue is careful restoration of the site upon project completion. Disturbed areas must be restored with new vegetation that is both native and suited to the site, and which will enhance the restored viewshed. Just as important is post-construction steps must be taken to monitor the new plantings for health, and also to ensure that non-native invasive plant species do not become established. With good vegetation management, undesirable landscapes and discordant features can be

screened, while opening views to desirable landscapes beyond.

As communities engage in the scenic resource inventory process, they should also note locations where vegetation management can be utilized to restore historic scenic views. This can be done by consulting old photographs of the landscape, as well as aerial imagery that was produced in the middle of the 20th century, when the regional landscape was much more open.



Mitigating Visual Impact

Mitigation measures can be utilized to reduce identified visual impacts of development on scenic or aesthetic resources. Sensitive siting and design of a project is the best way to mitigate its potential visual impacts. Sometimes a proposed development can be sited in a location which can eliminate or substantially reduce visual impacts, or the impact may be reduced through downsizing, screening, camouflaging intrusive features of the project, or a combination of both.

The Dutchess County “Greenway Sourcebook and Guides” series suggest a number of rural development guidelines that are intended to mitigate new development in rural areas through the use of conservation subdivision design.

These include:

- Minimizing the clearing of vegetation and preserve important natural features of a site such as prime farmland, mature woodland, and riparian corridors;
- Retaining cultural and historic features of the landscape such as stone walls, hedgerows, and other rural landscape elements;
- Avoiding siting buildings, access roads and other new construction in treelines, or along the edges of fields and avoid open fields. (Figure 14)

Another resource is the “Design Your Town” guide to development by Orange County in collaboration with the Regional Plan Association, Lincoln Institute of Land Policy and Pace University Land Use Law Center. It provides site development tools similar to the Dutchess County Greenway Sourcebook and Guides.

The Department of Environmental Conservation (DEC) has published “Assessing and Mitigating Visual Impacts,” which outlines the proper procedure for developing in a visually sensitive place. The DEC defines aesthetic impact as occurring when “there is a detrimental effect on the perceived beauty of a place or structure.” The DEC notes that it is important that visual impacts to both designated Scenic Areas of Statewide Significance that the State has identified along the Hudson River and locally identified scenic resources of importance be identified and integrated into SEQR visual impact assessments.

The presence of the Scenic Areas of Statewide Significance (SASS) along the Hudson River can give local government additional leverage in mandating mitigating measures for visual impacts. Policy 24 of the New York State Coastal Management Program



Figure 14. Illustration from the Dutchess County Greenway Guide A-1, Fitting into the Landscape, illustrating use of conservation subdivision design to mitigate visual impact of development in rural areas.

mandates that State agencies prevent impairment of scenic resources of statewide significance due to State actions. Policy 25 requires that proposed actions located outside a designated SASS must protect, restore or enhance the overall scenic quality of the coastal area. Local governments are not mandated to consider visual impacts on a designated SASS, but they can take into account their presence in assessing the environmental impacts of proposed development, including visual impacts.

Strategies that the DEC suggests for local governments to implement to protect local resources are local planning and local zoning and other growth management tools such as subdivision and site plan review. Additionally, sensitive areas of local concern should be more specific than those of statewide concern.

For more in-depth inventories, the report includes a list of types of scenic resources recommended to be protected that local governments can also utilize in identifying and protecting their scenic resources. These include:

- A property on or eligible for inclusion in the National or State Register of Historic Places;
- State Parks;
- Urban Cultural Parks;
- The Catskill State Forest Preserve;
- National wildlife refuges, State refuges and wildlife management areas;
- National Natural Landmarks;
- National Parks, Recreational Areas, Shorelines, Forests;
- Rivers designated as National or State Wild, Scenic or Recreational;
- A site, area, lake, reservoir or highway designated or eligible for designation as scenic;

- Scenic Areas of Statewide Significance;
- A State or federally designated trail, or one proposed for designation;
- State nature and historic preserve areas;
- Palisades Interstate Park system;
- Bond Act Properties purchased under the Exceptional Scenic Beauty or Open Space category.

The agency recommends a number of strategies for mitigating the visual impacts of land use and development to reduce potential adverse effects to those areas.

Once visual impacts are identified mitigation strategies should be employed to diminish effects. The report outlines ten mitigation strategies in three categories: design and siting; maintenance; and offsets.

In designing and siting a development, the optimal approach is to place new structures and other site plan elements outside an aesthetic resource's viewshed. If that is not possible, the DEC recommends a number of alternate strategies:

- Screening constructed out of soil, rocks, bricks, vegetation;
- Relocating development to an area with topography and vegetation that may serve as screening elements;
- Camouflaging or disguising through use of color and patterns;
- Lowering the profile of structures and other proposed site elements by restricting the height of structures;
- Downsizing by reducing the scale and intensity of a proposed development and extents of disturbance;
- Utilizing alternative technologies to reduce project impacts;

- Using non-reflective building materials and exterior color schemes that better blend with the existing landscape;
- Reducing the visual impacts of outdoor lighting through selection of low-impact downcast lighting and careful calibration of light intensity.

The level of maintenance of the landscape and the structures within the landscape can have great impact on the scenic character of an area and on its scenic resources. Maintenance of scenic landscapes also includes where feasible the decommissioning of visually discordant structures and other development,

and removing them from the landscape. Examples of landscape maintenance could include among other actions removal or rehabilitation of abandoned and deteriorate structures, and removal of billboards

Offsets refer to actions that may take place off a site where mitigating a potential undesirable visual impact is not practicable. An example of an offset could be removal of a highly visible deteriorated or blighted structure or other existing aesthetic problem that may be visually proximate to a proposed development impacting a scenic resource.





Conclusion

This scenic resource protection guide has been developed to assist local governments, and residents as they continue to work together to identify, plan, and protect the important scenic resources within the Hudson River Valley. It builds on many previous open space protection initiatives and guides over the past several decades. As such, it is not designed as a standalone document, but one that should be consulted and utilized in concert with the many other tools that are available to communities in the valley, such as comprehensive plans, open space plans, natural resource inventories and previously published state and local guidebooks. It is another tool that local governments, and citizen groups, can utilize to achieve their collective goals of revitalizing the Hudson River waterfront and restoring public access to the river, while also promoting the restoration and protection of the river for future generations.

This guide focuses on identifying and protecting scenic resources that are visible from the public domain: roads and highways, parks and other public areas. Although the primary objective of a scenic resource inventory is the protection of valued community assets, the process of identifying and assessing scenic resources presents an opportunity for residents to stop and in a conscious manner view scenic resources that are often passed unnoticed as people travel through the local landscape.

Scenic resources are a reflection of community values, so the participation of residents from throughout the community is a critical component of any endeavor to identify and prioritize the protection of community scenic resources. Community consensus on what constitutes a scenic resource, what the significant scenic resources in the community are, and what level of priority should be given to each resource, can ensure the successful implementation of a scenic resource protection program. A robust program of public participation should occur at multiple points in the process, from defining what constitutes a significant scenic resource, to developing a methodology for scoring and prioritizing which lands should be protected first, to deciding which protection tool is most appropriate for protecting an individual scenic resource. Public participation in identifying and mapping scenic resources in the community can also build a strong constituency for implementation of the protection plan.

This guide assumes that the primary tool for protecting scenic resources in communities will be conservation easements and maintaining the land in private ownership, with land owners still maintaining control of access to their lands under a conservation easement. Some parcels containing scenic resources, however, may be considered important enough to be acquired by government or land trust, as public open space.

There are also a number of tools outside easement or land acquisition that are available for communities to implement their scenery conservation goals and objectives. Most important are comprehensive plans and zoning regulations. Local governments are also empowered to adopt regulatory tools such as subdivision regulations, site plan review, design guidelines or standards, and zoning overlay districts.



Appendix 1. List of Resources for Local Governments

Publications

There are a number of publications available to assist communities in preparing a scenic or natural resource inventory. They include:

Assessing and Mitigating Visual and Aesthetic Impacts. NYS Department of Environmental Conservation. 2019. Available at: https://www.dec.ny.gov/docs/permits_ej_operations_pdf/visualpolicydep002.pdf

Creating a Natural Resources Inventory: A Guide for Communities in the Hudson River Estuary Watershed. Ingrid Haeckel and Laura Heady, NYSDEC Hudson River Estuary Program. 2014. Available online at: <http://www.dec.ny.gov/lands/100925.html>

Creating and Maintaining Hudson River Views: A Handbook for Landowners. NYSDEC Hudson River Estuary Program. 2020. Available at: <https://hudson.dnr.cals.cornell.edu/>

Design Your Town. Orange County Department of Planning. Available at: <http://designyourtown.org>.

Dutchess County Greenway Sourcebook and Guides. Dutchess County Department of Planning & Development. Available at: <https://www.dutchessny.gov/Departments/Planning/Greenway-Connections-Guides.htm>

Local Open Space Planning Guide. NYS department of Environmental Conservation & NYS Department of State. 2004. Available at: https://www.dos.ny.gov/lg/publications/Local_Open_Space_Planning_Guide.pdf

New York State 2016 Open Space Conservation Plan. NYS Department of Environmental Conservation. 2016. Available at: <https://www.dec.ny.gov/lands/98720.html>

Scenic Resources in the Shawangunk Mountains Region: A Guide for Planning Boards. Shawangunk Mountains Regional Partnership. Available at: <https://www.mtnscenicbyway.org/planning-board-guide/>

Strategic Conservation Planning. Ole Amundsen III, Land Trust Alliance. 2011. Available at: <https://www.landtrustalliance.org/publication/strategic-conservation-planning>

The Hudson Valley Conservation Strategy. Scenic Hudson, Inc. 2017. Available at: <https://www.scenichudson.org/our-work/climate/hudson-valley-conservation-strategy/>

Mapping

There are a number of online mapping tools that are available to local communities. These tools may be useful in classifying and mapping the natural, scenic, and cultural elements of a landscape, and can direct a researcher to other sources of information. They include:

Cultural Resource Information System (CRIS) is an interactive map showing State- and National Register of Historic Places listed and eligible properties, historic districts and information on archaeology and cultural resources. NYS State Historic Preservation Office. <http://nysparks.com/shpo/>

Hudson Valley Natural Resources Mapper (HVNRM) is an interactive map that provides location and data on water resources, forest cover, wildlife, aquatic and plant habitat and numerous other ecological resources in the Hudson River watershed, compiled from state and national sources. NYS Department of Environmental Conservation. <https://giservices.dec.ny.gov/gis/hvnrm/>

LandScape America is an interactive map of open space and ecological resources. <http://www.landscape.org/>

NRCS Web Soils Survey (WSS) is an interactive version of traditional soil survey maps, with features that permit extensive analysis of soils and soil conditions, including presence prime agricultural soils and farmland of statewide

importance, hydric soils and soil-related development constraints. Natural Resources Conservation Service.
<https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm>

Protected Areas Database of the United States is an interactive map showing lands within the United States that are protected as public and private parks and preserves, or through conservation easements and other mechanisms. US Geological Survey Gap Analysis Project. https://www.usgs.gov/core-science-systems/science-analytics-and-synthesis/gap/science/introduction-pad-us-viewer?qt-science_center_objects=0#qt-science_center_objects

Traffic Data Viewer is an interactive map that shows traffic volumes on state highways as well as some local highways. NYS Department of Transportation. <https://www.dot.ny.gov/tdv>

USGS Historical Topographic Map Explorer is an interactive map that compiles all current and historic USGS topographic maps in digital format that permit exploration of changes in the landscape over the past 125 years. USGS & ESRI. <https://livingatlas.arcgis.com/topoexplorer/index.html>

Land Trusts

General information on land trusts is available through the Land Trust Alliance at: <https://www.findalandtrust.org/>

Local Government Agencies

Albany County

Economic Development, Conservation and Planning
Department
(518) 447-5670
www.albanycounty.com

Capital District Regional Planning Commission
(518) 453-0850
www.cdrpc.org

Columbia County

Planning Department (518) 828-3375
www.columbiacountyny.com

Dutchess County

Department of Planning and Development
(845) 486-3600
Environmental Management Council
www.dutchessemc.wordpress.com
www.dutchessny.gov

Greene County

Department of Economic Development,
Tourism and Planning (518) 719-3290
www.greene-ny.com

Orange County

Department of Planning (845) 291-2318
www.co.orange.ny.us

Putnam County

Division of Planning and Development
(845) 878-3480
www.putnamcountyny.com

Rensselaer County

Department of Economic Development and Planning
(518) 270-2914
www.rensco.com

Rockland County

Department of Planning (845) 364-3434
Department of Environment Resources
(845) 364-2670
www.co.rockland.ny.us

Ulster County

Planning Department (845) 340-3340
Department of the Environment (845) 338-7287
Environmental Management Council
www.ucenvironment.org
www.co.ulster.ny.us



